Vol. XIII. ROCHESTER, N. Y., NOVEMBER, 1852. No. XI.

THE FUTURE OF THE GENESEE FARMER.

One more number completes the present volume of the *Genesee Farmer*, and ends our labors for the year 1852. We have spared neither labor nor expense to make the monthly visits of our journal interesting and profitable to our numerous readers. Grateful to its numerous friends for the unparalleled favor with which it has been everywhere received, our devotion to their best interests shall prove how sincerely we thank them, and appreciate all their kindness. We never had any private business to promote by writing for the agricultural press, either north, south, or at the federal metropolis; and therefore we may say with equal truth and sincerity, that the interests of our readers are our interests; and that we desire no other.

Agriculture and Horticulture are great and enduring interests; they are susceptible of large and indefinite improvement. To effect this, we have sought to unite the advocates of agricultural progress in all the States into one national body, that something may be done in our lifetime in behalf of agricultural text-books, experimental farms, schools, and rural science, worthy of a republic in which farmers constitute the ruling majority. But every step we have taken that appeared likely to improve anything, has encountered opposition from the ignorant, the selfish, and the prejudiced. If public opinion be not yet ripe to sustain a national agricultural Society, nor one experimental farm, agricultural or horticultural school, in America, the fault is not ours; nor shall we abate our humble efforts to bring public opinion up to that degree of enlightenment which will regard the science of agriculture as not less worthy of colleges, museums, professional libraries, laboratories, and lecture rooms, than the science of medicine.

In a field so broad as the United States, it is not always easy to determine at what point one's services will be most useful to an interest that employs over five thousand million dollars capital, and labor in proportion. Such an interest demands a very comprehensive and perfect organization, having its head at Washington, and its working associates in every State and Territory in the Union, for the collection and diffusion of useful knowledge. Our sympathies are with all sincere and active friends of improvement, no matter where they reside; and we can not but believe that these noble spirits will ere long co-operate most effectively in all the States, to increase the learning, cultivate the taste, improve the practice, and enlarge the views and science of American farmers. As a medium of communication between those who believe in rural instruction, and desire to improve, the *Genesee Farmer* offers many and peculiar advantages. It is published in a farming region sufficiently advanced to sustain an agricultural journal years before the *Albany Cultivator* was started, at twenty-five cents per annum. In successful agriculture, horticulture, and nurseries, Western New York has attained a degree of maturity and excellence which we have sought in vain elsewhere on this con-

tinent. Our cheap periodical is a *help* to other agricultural papers, not a competitor. They have started into existence after it. This pioneer publication, and its patrons of a quarter of a century, have created a demand for agricultural reading, and a score of new journals are profiting by it. We wish them all success; for there are still hundreds of thousands, nay millions, that read no similar work, and affect to despise all book knowledge.

Whatever discoveries are made in rural arts and sciences in Europe or this country, will be sure to receive an early notice in this journal. Congress has printed and ordered printed three hundred and ninety thousand volumes of the agricultural books prepared by the writer in the Patent Office; and we have given in the *Journal of the United States Agricultural Society*, many months in advance of Government, the agricultural statistics of every State and Territory, as taken at the last census, and corrected at the Census Office down to July 22d of this year. These official tables will be found in the present number of the *Farmer*. If each subscriber, in ordering this paper for 1853, will induce his friends and neighbors to add their names to our list, both they and the editor will be benefitted, as well as the farming community.

So far as time and ability will permit, we shall be happy to answer all inquiries that our readers may please to make, without charge; as we shall be thankful for every item of knowledge either in husbandry or horticulture, adapted to the character of this paper, and not already sufficiently known.

Now is the time to subscribe for the coming year; for our terms are strictly pay in advance; the profits being only a few cents on each volume of the work.

WHEAT CULTURE.

After noticing the unprecedented drouth that has prevailed in central Illinois the pr season, Mr. A. Stevens, of Peoria, says: "I have read your articles on the culture of wheat, with great satisfaction; and I hope that you will continue the subject until the raising of that grain, though not a new business, shall be better understood by *western* farmers at least, than it ever has been even by the most practical and intelligent of them."

The two most common defects in wheat culture at the west, are the use of impure seed, or sowing clean seed on foul land, and a total disregard of the essential elements of the crop, which ought to abound in the soil to secure a profitable harvest. As a question of economy, the annual loss that accrues from the use of bad seed, and the propagation of pestiferous plants and weeds, should be pondered, not only by every wheat-grower, but by every other person who cultivates so much as a rood of land. Carelessness in this regard is a distinguishing feature in American tillage, whether on a wheat farm of a thousand arable acres, or in a small village garden. Some of our New York, New England, and Pennsylvania readers, will regard this remark too severe; but their better system of farming is only an exception to the general rule, which may be seen in all its deformity in the western, southern, and middle States. It is rare indeed that one meets with a field of wheat in Virginia or Maryland that is entirely free from garlic, the seeds of which damage the crop from five to twenty per cent. of its value. A volume might be written on the injury done by weeds, and the best means of extirpating them, without exhausting the subject. Clean land and pure seed are elements of profit in wheat culture, and agriculture generally, that we can not too often nor too earnestly commend to the attention of our readers. But neither clean land, nor pure seed, nor deep and thorough tillage, will long make wheat-growing profitable on the same fields, unless the raw material consumed and wasted in the processes carried on

is clearly understood by the farmer. The extreme reluctance with which cultivators study the elements of fertility in their soils; investigate the chemical changes wrought in the surface of the earth by the operations of plowing, harrowing, and hoeing; and consider the food of their living, growing crops, as actually consumed; compels us to view with some alarm the agriculture of the country. Our present system often takes one hundred times more of the precious atoms that form wheat and corn, tobacco and cotton, out of the surface of the earth, than is restored to it again. But our western friends will not now consider the damage that may be done to their newly improved farms; and therefore we need not waste time in writing, nor room in our journal, by urging them to husband ammonia, bone-earth, potash, soda, chlorine, magnesia, and gypsum, as the ingredients which nature has stored up in their virgin soils, not to be wasted by the two or three first generations that may chance to till them. Conceding what is not true, that wheat-growers have a moral right to exhaust the land of its elements of bread and meat, for exportation, we tell them that the free use of lime will render the natural resources of arated land more available to wheat plants. On all fields in which calcareous matter does not abound, and the phosphates and sulphates of iron and alumina do, lime may be used with decided advantage. In such cases, lime abstracts both phosphoric and sulphuric acids from iron or alumina, forming the phosphate of lime and gypsum, both of which improve the soil. To keep up the fertility of wheat farms, no practice has been so successful as the culture of clover, peas, corn, roots, and grass, in rotation with wheat; taking care to return in manure, or green herbage, the elements contained in these renovating crops.

Too much wheat is grown in the United States, and the price of this great staple is too low for the public good. Millions of bushels are raised every year, and sold for a sum of money that will no more than purchase, in any market, the raw material consumed and lost in making the grain. The business would be universally abandoned at present prices, but for the fact that the intrinsic value of the things in the land, which contribute so largely to form the harvest, is rarely estimated by the husbandman. To prevent the slow but unceasing impoverishment of the soil, more manure must be made, and what is made must be better husbanded, and used with greater skill. No arbitrary rules can be given that will apply to all climates, and all conditions of land; but much must be left to the sound judgment of the cultivator after he has been taught the true principles of his profession. Wool-growing and meat-making may be associated with wheat-culture with decided advantage. In producing a needful supply of manure, by the consumption of grass, hay, coarse grains, roots, and oilcake, so necessary to enrich all tilled land, the farmer may realize a fair income from his sheep. In short, our western friends should combine legitimate husbandry, *i. e.*, stock-raising and wool-growing, with tillage, or agriculture proper.

Nor should the hidden resources of the subsoil be forgotten in this brief survey of the art of producing wheat at a profit. If the elements of bread which a good Providence has placed in the subsoil are to be dug out over millions of acres, and sent by railways, canals, rivers, lakes, and the ocean, to distant cities, and there *wasted*, we prefer to say nothing of deeper plowing — nothing that will compel the next generation to give twice as much hard work for a bushel of wheat or corn as the people of Illinois now give. Posterity has done us no harm; and we will never knowingly aid in the unjust work of desolating one cultivated field from which those that are to come after us may wish to draw their indispensable food and raiment. They shall have the arable lands of all the grain and cotton-growing States of this Republic as rich in every respect as God made them, so far as our humble pen and tongue can secure that consummation.

THE WANTS OF SOCIAL AND DOMESTIC LIFE.

In the eagerness of our pursuit of the almighty dollar, how prone we are to forget the wants, and neglect the duties of domestic life. How often do we see that peace of mind which money can not buy, and all that wealth is permitted to purchase, thoughtlessly sacrificed to accumulate riches, never to be enjoyed by their nominal owner! Such folly deserves a word of rebuke at our hands, if the social and domestic wants of one or two hundred thousand readers have any claim to our friendly regards.

Of all useful arts and sciences, that Domestic Economy which teaches the wisdom of extracting much happiness from small means, best deserves our study; for it best rewards the practice of the community. Wisdom of this kind makes slow progress, not because a higher standard of social and domestic comfort is unattainable, but from the force of habits, handed down to us from an age of semi-barbarism and extreme poverty. So numerous and important have been the discoveries and inventions during the first half of the present century, that the mass of mankind have yet to learn the proper use of the new treasures placed within their reach. Nor is it an easy task for the head of a family to decide how he can make the most of the property and knowledge that legitimately belong to him. What shall he do? and how shall it be done?

In cities, thousands die of pestilence and other maladies of their own creating, from the neglect of cleanliness, and defective sanitary regulations. In the country, thousands work hard, fare hard, and die poor, not from any necessity, but because the knowledge and social culture which they most need are sadly overlooked and unappreciated. It is the glory of our free institutions, that the poor are rich enough, under wise instruction, with industry and economy, to have of their own, healthy and comfortable homes. Too many, however, make no adequate effort to rise in the scale of humanity; and some words of encouragement, some cordial to their feeble self respect, must be administered before they will begin to labor for their own good. Their domestic wants are in embryo; and the public authorities should see to it, that they are developed aright, securing equal justice and advantages to the physical, moral, social, and intellectual man. Although he, while in his lowest estate, may not know how to unfold the germs of good that his Maker has planted in his constitution; yet, wiser heads than his may successfully cultivate the barren soil within him. The African race has long been regarded as the most stupid of the descendents of Adam. Whether this be so or not, no one now denies that this race is capable of civilization, and indefinite improvement. When viewed in their proper light, the social habits and domestic wants of man are seen to be elements of great power. In skillful hands, these elements will form the basis of a sound public opinion, and prepare the way for the abatement of vice, and crime, and suffering to a degree now little dreamed of in our narrow philosophy.

In society as in geology, there are many strata. We have briefly alluded to the lowest, and proceed to invite attention to those above—to such as have dwellings of their own, but with broken windows, leaky roofs, badly fitting doors, and a scanty supply of fuel for warming them in the winter now close at hand. Shall these domestic matters be attended to, or not? That is the question. Is the reader a good economist? then be assured that discomfort is often more expensive than the full measure of enjoyment in the domestic circle. It is true that no inconsiderable folly is perpetrated under the influence of fashion, and a mistaken notion of what constitutes true taste and sound sense in rural architecture, household furnishing, landscape and farm improvements. A word of caution may not be amiss, to check extravagance, and prevent disasters, in this direction.

Great prosperity is always perilous. Society is already full to over-flowing of pride, conceit, hypocracy, and extravagance. These are the bane of quiet domestic happi-

ness, and the curse of social life. Far be it from us to countenance this quackery of upstart wealth, whose ephemeral brilliancy dazzles but to blind and ruin its votaries. To call into existence in the bosom of a family, far more wants than can reasonably be gratified, is an evil and a wrong of great magnitude. Such improper wants suggest, and ever prompt, improper actions. Engagements are entered into that can not well be fulfilled; and speculations follow of a more reckless character. True social wisdom carefully avoids the temptations that beset the path of virtue. To the spirit of rivalry and ambition there is no limit. If nine-tenths of the community lived in marble palaces, the other tenth might die of disappointment if they failed to erect palaces made of polished ivory, and covered with plates of pure gold. In such a strife, where is the wit, the taste, the science, or the happiness?

We must go back to the simplicity of nature, and the truthfulness of science, if we would elevate and improve society. It can never be done by humbug. The country is overrun with quacks of every degree — quack statesmen and quack philanthropists, quack editors and quack clergymen, quack doctors and quack lawyers, quack authors and quack artists. All these wax fat at the public expense; and quack publishers are beginning to share very liberally in the spoils. It is the artificial wants of the community that sustain all these charlatans; and it is difficult to discover at what point in our social progress the pleasure of being cheated is to stop. A strong love of morbid excitement pervades the very heart of society, and grows on what it feeds. The most trashy and corrupting books make fortunes for the manufacturers and writers; while works of solid merit and of a purifying tendency, find comparatively few purchasers, and starve their authors. These may be unwelcome truths, but they are important truths nevertheless.

BEAUTY AND VALUE OF FOREST TREES.

"The goodliness of trees when we behold them deliteth the eye."— *Richard Hooker. Born just three hundred years ago.*

No people have more reason than the Americans to admire "the goodliness of trees;" and yet, in no country are they more rudely assailed as the enemies of civilization, and objects worthy of extermination by the ruthless axe and the consuming fire. Such semi-barbarism is discreditable to our national taste, our common sense, and our foresight in other matters of smaller moment. Trees abound in the elements of beauty which may be combined in a thousand pleasing forms. Their culture enables the skillful artist to paint his landscape in living verdure — to present to the eye, open fields and shading groves, wood-crowned hills and sun-lit vales, in charming contrast. Without trees, the world would be a desert; with them, it can be made a paradise. They temper both heat and cold, prevent the injurious dryness of the atmosphere, and greatly promote the fall of genial showers and seasonable rains, in spring, summer, and autumn. For wood, timber, lumber, staves, and a thousand uses, they are almost invaluable.

Forest-culture, considered as a science and an art, is destined to become extremely popular in the United States. The boundless area of fertile lands in this country, the admirable adaptation of its soil and climate to the growth of magnificent trees, and the production of incomparable orchards, and the rich rewards that will recompense the labor and capital devoted to this department of agriculture, can not fail to render it the favorite pursuit of millions.

The season for collecting the seeds of oaks, walnuts, beeches, and chestnuts, is at hand. Some of these, sent to the continent of Europe, and put up under our direction, have preserved their vitality, and are now growing up honored specimens of American forest trees. Extracted from the burr as soon as ripe, none of these seeds should be

allowed to become perfectly dry. We box them up in natural earth which is neither dry nor wet. First put in a layer of earth an inch or two in depth, according to the distance the seeds are to be conveyed, and then a layer of acorns, walnuts, chestnuts, beechnuts, or other seeds. This is to be covered with more loose earth, which is to serve as the bed for another layer of nuts; and in this simple manner a box or cask may be filled, and put in order for transportation. Nuts of the tea tree are extremely liable to become rancid and have their germs killed. The buds on the rattoons of sugar-cane used in planting, suffer in a similar manner, as we have seen in the agricultural department of the Patent Office. To preserve the vitality of seeds and buds, is an object of great importance.

Seeds of our native trees are in demand for exportation; and we respectfully commend this whole subject to the attention of our readers. In no other way can they so cheaply embellish their farms, and add to their attractiveness and value, as by improving their woods, groves, and forests, and planting all the choice varieties of American trees on any spare ground not needed for cultivation.

WINTERING CATTLE AND HORSES.

Owing to the great drouth the past summer, in many parts of the country, winter feed will be exceedingly scarce, and the most rigid economy will be necessary to enable many farmers to carry their ordinary stock through the winter. What is the cheapest method of wintering cattle, sheep, and horses? always an interesting question, becomes now a most important one; and though we by no means pretend arbitrarily to answer it, yet we will endeavor to throw out a few hints that may be useful. We would premise that no particular method can be laid down, that will be applicable to all cases; the climate, locality, nature of the crops grown, and prices obtained for them, interfere with any such calculations. A more serious drawback, however, is the deplorable ignorance of us all on the subject of nutrition; for were the principles of nutrition well understood, it would be easy to alter our modes of feeding to suit circumstances, and so keep the animals in the best and most economical manner.

Different breeds of animals doubtless require different amounts of food; yet, as a general rule, it may be stated that animals require an amount of food in proportion to their weight. That is to say, an animal weighing 1200 lbs. would require twice the food per week as one weighing 600 lbs., other things being equal. More food, too, is required in cold than in temperate weather — more when the animal is worked than when doing nothing. Also, cows giving milk or when in calf, and young animals, require more than an animal of the same weight in a perfectly normal state. If, too, we wish an animal to lay on fat, we must give more food — or rather the same quantity or bulk of food, but of a more nutritious quality — than would be necessary to keep it in a normal condition, or without increasing or decreasing in weight.

The amount of food necessary per week to keep an animal in a normal condition under the most favorable conditions of warmth, is not accurately ascertained. The amount of food, however, which animals eat when given *ad libitum*, depends to a great extent on the per centage of *available non-nitrogenous* substances it contains, and not on the nitrogenous. Thus, an animal fed on oilcake, peas or beans, and clover hay, will eat nearly three times as much nitrogen as when fed with corn meal, hay, &c., though it is probable that the amount of available non-nitrogenous substances eaten, is pretty much the same in either case. The advantage, therefore, in feeding a highly nitrogenous substance, is not in the less amount required by the animal, but in the increased value of the manure and the increased quantity of fat a given amount of non-nitrogen-

ous food will produce, when eaten in conjunction with nitrogenous substances. We are, however, by no means to suppose that the *rate of increase* is in *exact proportion* to the per centage of nitrogen in the food, for it is not; *rapidity* of increase being attained only at an increased proportional consumption of nitrogenous substances.

By *available* non-nitrogenous substances, we mean such substances as sugar, starch, oil, gum, &c., which are readily dissolved in the stomach, and easily assimilated; and not such substances as woody fibre, which, though a non-nitrogenous substance, and composed precisely of the same elements as sugar, &c., is not available as food, being incapable of solution in the stomach, and is passed through the body of the animal unchanged.

In providing our store stock with food, especially in a season of scarcity, our object will be to give them a sufficient amount of available non-nitrogenous substances in the least expensive form. That is, leaving out every other relative question, such as value of manure and increase of animal, and aiming only at keeping the animals in a normal condition without work, we should prefer those foods, the price being the same, which contain the most sugar, starch, &c., supplying the necessary bulk with some cheap substance, such as straw.

The prices of some of the substances used as food for cattle, taking Rochester wholesale prices as the basis of calculation, will be an indication of the value practical farmers put upon them. We give the price per ton; for it is weight, and not bulk, that we desire in purchasing food, or in estimating its value.

Bran, at 7 cents per bushel of 10 pounds,	$14 00	per ton.
Shorts, at 9 cents per bushel of 14 pounds,	12 86	"
Coarse middlings, at 14 cents per bushel of 20 pounds,	14 00	"
Fine " at 20 cents per bushel of 27 pounds,	14 07	"
" " at 30 cents per bushel of 34 pounds,	17 64	"
Indian corn, at 60 cents per bushel of 60 pounds,	20 00	"
Oats, at 38 cents per bushel of 32 pounds,	23 75	"
Oilcake,	20 00	"

Had we complete analyses of these substances, it would be easy to decide accurately which would be the cheapest food for our purpose. We have no doubt, however, that Indian corn contains much the most *available* non-nitrogenous matter, and that 100 lbs. of ground corn meal mixed with the required bulk of cut straw, will be of more avail in sustaining animal life during the winter than any other food that can be obtained at the same price. We have no doubt, too, that horses can be kept in the same way, at a much less cost than feeding them hay. If, however, they be worked much during winter, they would require a more nitrogenous food, to supply the wear and tear of muscle, and a little oilcake meal, pea meal, or oat meal, might be mixed with the cut straw, &c., —instead of, or in addition to the corn meal — with advantage.

BOUSSINGAULT estimates, from experiments and chemical analyses, that 100 lbs. of good meadow hay may be replaced by

Bran,	85 pounds.	Peas,	27 pounds.
Oats,	68 "	Potatoes,	280 "
Barley,	65 "	Carrot,	382 "
Maize,	59 "	Wheat straw,	426 "
Rye,	77 "	Oat straw,	383 "
Linseed cake,	22 "	Barley straw,	460 "
Beans,	23 "	Pea straw,	64 "

If this table of equivalents can be relied upon, it appears that 100 lbs of hay is equal to 426 lbs. wheat straw, and that 22 lbs. of oilcake is equal to 100 lbs. of hay, 68 lbs. of oats, 58 lbs. of bran, &c., &c. BOUSSINGAULT found that his 17 horses, averaging 1,070 lbs. in weight, eat and did well on a ration of 33 lbs. hay per day, working eight hours regularly every day. To obtain the same amount of nutritious food in straw, a horse must eat 165 lbs. of straw per day — a feat he is incapable of performing: but if we give him 30 lbs. of straw, equal to 6 lbs. of hay; 5 lbs. oilcake, equal to 22 lbs. of hay; and 3 lbs. corn meal, equal to 5 lbs. hay; he will receive the same amount

of nutritious elements, and in about the same bulk, while the cost of wintering him in this way would be considerably reduced.

By carefully studying the price of substances used as food, and their relative value, most farmers may save considerable expense in keeping their animals, not by stinting them, (no farmer can afford that,) but by using that food which contains the most nutriment for a given cost.

FATTENING CATTLE AND SHEEP IN WINTER.

The necessity of manuring the soil by natural or artificial means, before the maximum produce can be obtained, is now all but universally admitted; and whatever difference of opinion exists as to the best means of obtaining and applying manure, all agree that it must be obtained and applied in some way or other, or the soil will gradually become impoverished and incapable of profitable cultivation. In some localities it may be good economy to increase and preserve the fertility of a soil by purchasing *artificial* manures, depending principally on them, and selling off the farm nearly all the produce, and so making no manure by stock. For this purpose, good Peruvian guano, at two and a half cents per pound, is decidedly the cheapest and best artificial manure at present offered for sale. But the great body of farmers can not purchase artificial manures; neither would it pay them if they could; their chief reliance must be on the manure made during the winter months, by cattle, sheep, and other stock, consuming produce grown on the farm. A consideration, therefore, of the effects produced by feeding a given amount of produce on a farm, can not fail to be useful and interesting to every farmer. There are many scientific matters connected with such an inquiry, which it would be interesting to us and to some of our readers to discuss; but at this time we must confine our remarks to the vital question — Will it pay?

In the July number, page 205, we gave the results of some valuable experiments instituted by the Worcester Agricultural Society, Massachusetts, in regard to the economy of cutting food for stock. From the same experiments we have arranged the following table, which shows the amount of hay consumed weekly by each 100 lbs. live weight of animal, the weekly increase of fat, &c., upon each 100 lbs. live weight, and the amount of increase which *one ton of hay* will produce. The bottom line shows the mean live weight of the animals with which the trials were made:

	C. B. Dimond. Dry Cows.	Harvey Dodge. Steers.	W. S. Lincoln. Milch Cows.	A. H. Hawes. Working Oxen.	Boussingault. The mean of numerous experim'ts.
Hay, or its equivalent, consumed per week by each 100 lbs. live weight of animal,	17.07 lbs.	13.80 lbs.	18.25 lbs.	16.80 lbs.	37.50 lbs.
Increase of animal per week upon each 100 lbs. live weight of animal,	0.34 lb.	0.73 lb.	1.11 lbs.	0.91 lb.	1.87 lbs.
Increase of animal for *one ton* of hay consumed,	98⅓ lbs.	106 lbs.	122 lbs.	108 lbs.	100 lbs.
Mean weight of animal,	892 lbs.	1110 lbs.	900 lbs.	1567 lbs.	748 lbs.

There is remarkable uniformity in the results obtained by the four New England experimenters, both in regard to the quantity of food consumed per cent. of live weight

of animal, and the *increase* obtained upon each 100 lbs. of live weight, and consequently in the weight of meat produced by one ton of hay. The last column is the mean result of many experiments as given by BOUSSINGAULT. The amount of food consumed per cent. of live weight is more than double any of the others, and so is the increase per cent.; so that the weight of beef produced by the consumption of one ton of hay, is nearly the same throughout the series; and we may safely take the mean result as a pretty correct indicative of what we shall obtain in common practice. The mean of the whole of the experiments is 106 lbs. of increase (which we shall consider as fat and meat) for each ton of hay consumed. From this it is evident that, in most places, feeding cattle in winter is attended with direct loss, or at least with no profit. How far the value of the manure may compensate for this loss, we shall inquire further on.

In some extensive experiments on sheep feeding, Mr. LAWES found that South Down sheep eat, per 100 lbs. live weight, 5 lbs. 2 oz. American oilcake, and 16 lbs. 2 oz. of clover hay per week; and increased 1 lb. 3 oz. Another lot eat per 100 lbs. live weight, 5 lbs. 2 oz. linseed, and 14 lbs. 12 oz. clover chaff; and increased 1 lb. 1¾ oz. per week. In the first experiment, 436 lbs. of oilcake and 1,378 lbs. of clover are required to produce 100 lbs. of increase. In the second, there is required 465 lbs. of linseed and 1331 lbs. clover hay to produce 100 lbs. increase. The 436 lbs. oilcake, at $20 per ton, would cost $4.36; the 1,378 lbs. clover hay, at $6 per ton, would be worth $4.14; making the cost of producing 100 lbs. of mutton, $8.50 — or eight and a half cents per pound.

From these facts it is most obvious that if feeding is a paying business, it is in the value of the manure made by it, and not in the mere production of beef, mutton, or pork. The whole question, then, of the economy of feeding cattle in winter, appears to rest on the value of the manure made in producing 100 lbs. of meat. To answer the question satisfactorily, requires much more data than we at present command. There are, too, many points involved in its settlement that are much disputed. Under such circumstances, therefore, we submit our own views, believing that they will ultimately be found not far from the truth.

In the first place, it is necessary to have some standard manure, the value of which is fixed, to compare with that made by feeding with different substances. For this purpose we know of nothing better than Peruvian guano, the consumption of which is now very great, and is steadily increasing. Its retail price is $2.50 per hundred. A first rate sample contains 16 per cent. of ammonia, and 25 per cent. of phosphate of lime, &c. The phosphate of lime is worth about one cent per pound; for it can be purchased for that in other forms, such as animal charcoal. Therefore, the price paid for ammonia in guano is nearly 16 cents per pound, and we know of no cheaper source of it. The hay used in the experiments given in the table, was what is called "English meadow hay." It contains about 1.2 per cent. of nitrogen, or *one ton would contain twenty-four pounds nitrogen*. We may estimate the amount of *ammonia* in the excrements to be equal to the amount of *nitrogen* consumed in the food. Therefore, in consuming one ton of hay by cattle, we get 106 lbs. beef and 24 lbs. of ammonia in the manure, worth, at sixteen cents per pound, $3.84. The ton of hay, too, would contain 14 lbs. phosphate of lime; and estimating that 3 lbs. phosphoric acid are retained in the increase of animal, would leave 8 lbs. phosphate of lime in the manure. This, as we have said, is worth 8 cents. If we call the potash, soda, sulphuric acid, &c., worth eight cents more; we get, in consuming one ton of hay on the farm, by horses, cattle, or sheep, $4 worth of manure. The 106 lbs. of beef, at 5 cents per pound, is $5.30. Adding the $4 worth of manure, makes the return for one ton of hay, $9.30.

With these data, any farmer can tell whether, in his locality, it is preferable to sell the produce or consume it on the farm — it depends on the relative price of hay and meat.

If oilcake and clover hay be used as food, the manure will be much more valuable than where hay only is eaten. Thus, taking the results of Mr. LAWES above quoted,

we have, to produce 100 lbs. of mutton, 436 lbs. oilcake, which contained 21.84 lbs. of nitrogen, and 1,378 lbs. clover hay, containing 29.08 of nitrogen — making in total food consumed to produce 100 lbs. increase, 51 lbs. of nitrogen. According to our former estimate, this would give 51 lbs. of ammonia in the manure, and, at 16 cents per pound, would be worth $8.16. The oilcake, too, would contain 8.72 lbs. phosphoric acid, the clover hay 6.24 lbs. This, estimating 3 lbs. as taken up in the 100 lbs. increase, would leave about 24 lbs. of phosphate of lime, &c., in the manure, worth 24 cents. If we allow 10 cents for the potash, soda, &c., the value of the manure made in producing 100 lbs. of meat with oilcake and clover, will be $8.50. This, it will be seen, is exactly the value of the food eaten, reckoning the oilcake at $20 and the clover hay at $6 per ton; so that we get the 100 lbs. increase of animal for nothing, except the labor of attending the animals.

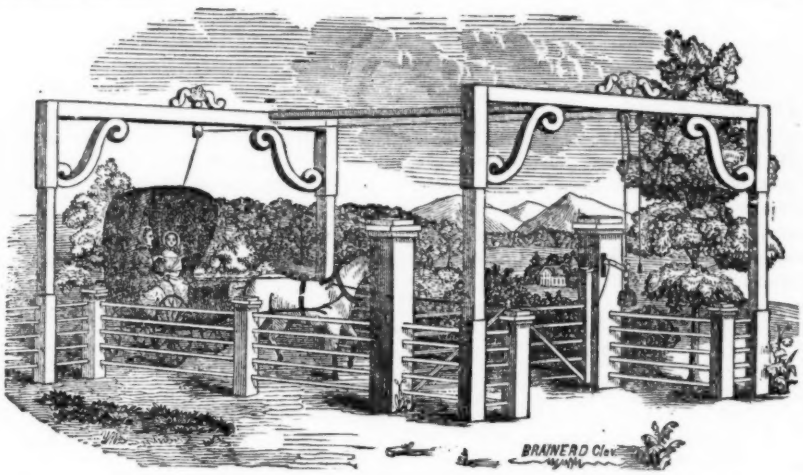
From these facts, which are undoubtedly true in their comparative character, we conclude that while it is of questionable economy to feed hay to cattle in winter, the production of meat by oilcake and clover chaff is attended with considerable ultimate profit. There are probably no other substances used as food, that would give so good a result; clover containing more nitrogen than meadow hay, or any of the different kinds of grasses, and oilcake is perhaps the most highly nitrogenous substance used as food by herbivorous animals. Beans, peas, and lentils, approximate closely to oilcake in their per centage of nitrogen; and their growth and consumption on the farm can not be too highly recommended, or be too extensively adopted by all farmers. Even admitting that, weight for weight, the cereals wheat, rye, oats, barley, and maize, are as good for feeding purposes as the leguminous seeds beans, peas, and lentils, or as oilcake, (which, however, is by no means the case,) the manure made from them would not be half so valuable; and, as we have shown, it is to the value of manure that we must look to make fatting stock a profitable business. Leaving the value of the manure out of the calculation, feeding is in most cases attended with direct loss: reckoning the value of the manure, and feeding with oilcake, beans or peas, and clover hay, it is attended with considerable profit.

Many will be inclined to object to these conclusions. We submit them, however, hoping that they will not be cast aside with a careless perusal, but be thoroughly investigated, when we think their justness will be evident. At all events, if they lead to thought and an examination of the matter, some good will be accomplished. The value of manure we have estimated according to the present price of guano. The subject is a deeply interesting and important one to every cultivator of the soil.

Prepare for the Storm.—Winter is now fast approaching, and of course all our readers have made preparation to give him a warm reception. The necessity for this is so apparent, that but few perhaps neglect it in the main; yet how many there are who, when the cold weather is really upon them, have cause to regret that some things have been left undone that should have been done. They then resolve that the next winter shall not find them in so unprepared a condition. The next winter they repeat their good resolves, and try to satisfy a troubled conscience, and thus the matter ends for a year. To such — to all — we say, look about your premises, — your house, and barn, and stables, — and see what more you can do, even if it is not absolutely necessary, to make more comfortable yourself and family, and all living creatures that look to you to protect them from the winter's blast; and to save from injury the crops you have stored, and which you proudly look upon as the result of your summer's toil. Do your work up thoroughly in this respect, and you can enjoy the winter's fire, the visits of your friends, the reading of your agricultural papers with a peaceful conscience, laugh and grow fat, and come out in the spring with new life and energy for another season of labor.

IMPROVEMENT IN FARM GATES.

We have been furnished by Mr. Enoch Woolman, the inventor, who resides near Damascoville, Mahoning county, Ohio, with the accompanying engraving and description of his improvement in farm gates. We understand that a number of them have been introduced in the neighborhood where the patentee resides, and that they give good satisfaction.



"The principal improvement consists in its being so constructed that a person in a carriage or on horseback, can pass through it without alighting. On approaching from either way, the person takes hold of a rope, which hangs over the center of the road, and pulls gently for a short time, and the gate comes open and fastens itself; and then in driving a carriage or wagon through, one of the wheels runs over a trigger fixed on the ground, which unfastens it, when it immediately shuts and fastens itself again. The only difference in passing a person on horseback is this: In pulling the rope to open the gate, care must be taken not to pull it far enough to allow it to fasten itself; but by pulling it about two-thirds of the way open, the horseman can easily pass through before it shuts itself again. The machinery by which these movements are performed, is simple, and not liable to get out of repair, and the whole structure is substantial and durable, and will, no doubt, commend itself to the favorable notice of those for whose convenience it is intended. A model of this gate was presented for examination at the World's Fair in London, and received from the committee a very favorable notice."

Nothing adds more to the appearance of a farm, or is of more convenience, than good farm gates; and while we are not prepared to recommend this gate for the adoption of farmers, we are prepared to say to all, see that you have good gates wherever convenience and safety require them. Many will prefer having them made by mechanics, while others can well employ their leisure time in winter in making them; and if a few more are made than is thought necessary, they will not come amiss. Every farmer should have a few common tools, and a workshop, where he can employ himself usefully on a rainy day. We have known farmers — and so have you, dear reader — who made all kinds of miserable shifts for gates, using bars and many other inconvenient contrivances, and yet who lounged away enough time every year to furnish each field with a good gate. This, perhaps, is the result more of thoughtlessness than indolence. If no shop and no tools are prepared, a person can easily excuse himself; but when shop and tools are all ready, inviting to work, few men are so indolent as not to accept the invitation. Therefore, get a few good tools, and prepare a little workshop, and the work is more than half done.

Condensed Correspondence.

Mulching Potatoes.—Last spring I tried a small experiment on potatoes, and am so well satisfied with the result that I shall try it on a larger scale next year. I planted and covered my potatoes as usual, but on one part of the field I covered the land with straw about six inches deep. We dug the potatoes last week; those on the covered land were much larger and yielded better than those not covered. One of the potatoes on the covered part weighed 2 lbs. 5 oz. The covered ones were much easier dug, and we save the labor of hoeing. I used wheat and oat straw, but suppose any refuse straw will answer. L. Morris.—*Windsor, Asht. Co., Ohio.*

A Singular Fact.—In the spring or summer of ——, a neighbor of mine put into his pen a very large hog, desiring to feed him until the following January. He was fed on corn meal and the refuse of the kitchen, from a common large trough in which, after eating, he would lie. In the month of August his appetite failed him and his growth seemed arrested. He was, however, carefully fed until the last of September, when finding he was not improving he was slaughtered, and on examining his stomach it was found to contain a large ball of hair resembling in size, and somewhat in shape, a goose egg, and so tightly knit together as to be separated only by application of the axe. C. P. Ramsdell.—*Venango Co., Pa.*

Oregon Peas, &c.—Enclosed please find a small package of the Oregon Pea, lately brought from that country. It is remarkable for its productiveness of both vine and pea, is said to make the best of hay in large quantity on poor land, bears till frost, will lie on the ground all winter without rotting, and is excellent for table use. It is small, but grows in bunches so that you can gather them very fast, say from ten to twelve pods at a grasp. It is not a climbing pea, and has a stalk greatly resembling our cotton. For pasturing, it would be very fine; also for manuring land by plowing under. It should be planted early.

I have raised the China corn this year. I got it from Kentucky. It produces a great deal of grain and fodder. I think it is the same as the Doura corn. It brings from ten to eighteen heads to the hill; the first heads were ripe the second week in August. It is still bearing, and I think will not stop until cold weather. I will send you a package, if you want it, without charge. A. H. Bradford.—*Brownsville, Tenn.*

We will plant the peas early next spring and report the result. Shall be pleased to receive a few grains of the corn.

Woolen Rags as Manure.—As a fitting return for your trouble in answering my inquiry in the May number, in regard to the application of Woolen Rags as a Manure, I now send you the result of my so doing. In my former letter I said nothing about the quality of the land I intended planting. It was a light yellow sand, and had been cropped with wheat the year previous and sowed with clover, which had not, however, taken well. I planted the piece, just one-third of an acre, part on the 10th of May, and the other part about the 20th, in rows three feet apart, putting the sets one foot apart. They would, I think, have produced more if only eight or nine inches apart. I first drew the rows, and then, after cutting them up, scatterred the rags, at the rate of one ton to the acre, dry, in just the state I saved them, in the rows and dropped my sets *on the rags*, covering them up in the usual manner. I hoed them three times, and the product is just 75½ bush. of the largest and best Pink-Eye potatoes I ever saw. The rags now appear but little decomposed. I purposely left two rows without rags; the difference in the appearance of the potatoes during their growth, and in the quality and quantity of the product, was very striking. I have just formed a manure heap, as follows: first, a layer of horse dung and litter; then a layer of woolen rags; then a layer of spent lime; then another layer of rags; continuing thus to the top, on which I put a heavy coat of the same as at the bottom. With it I intend dressing my garden in the spring. The piece on which I used the rags the present year, I intend again to plant with potatoes next year. J. C.—*Toronto, C. W.*

Such a heap needs a covering of loam or garden mould to retain the ammonia liberated by the lime from the decaying rags and dung.

PRODUCTIONS OF AGRICULTURE IN THE UNITED STATES.—SEVENTH CENSUS,—1850.

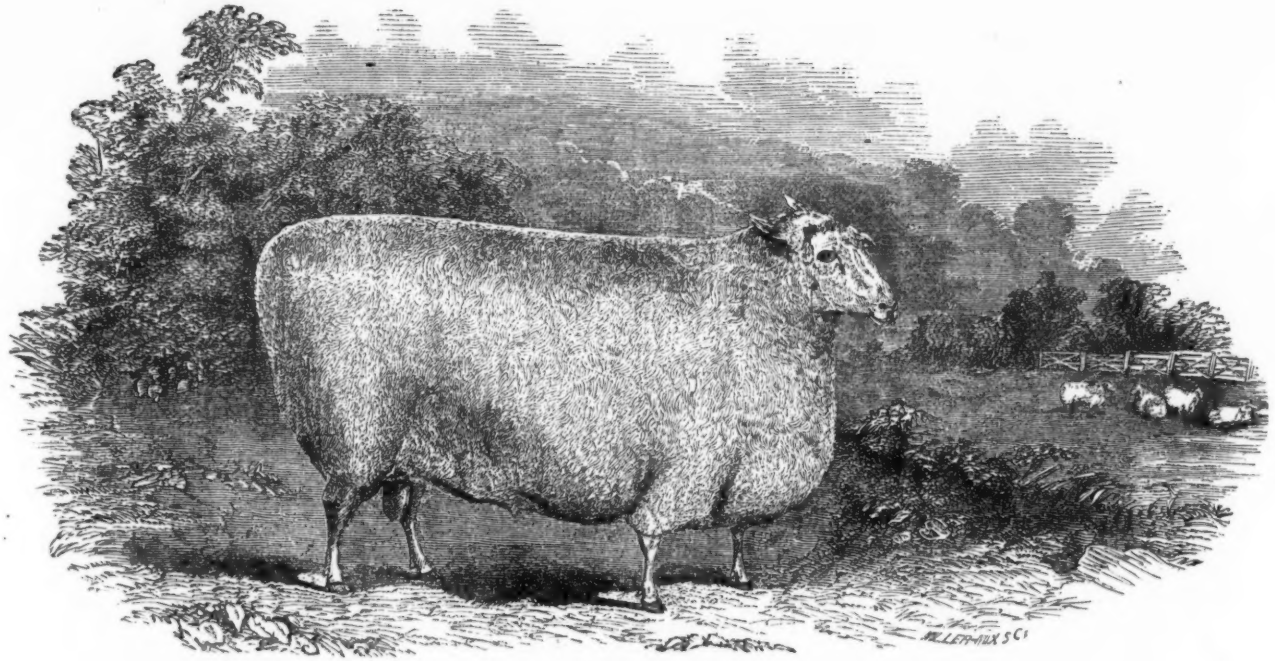
STATES.	Acres land improved.	Acres land unimproved.	Caash value of Farms.	Value Farming implem'ts & machinery	Horses.	Asses & Mules.	Milch Cows.	Working Oxen	Other Cattle.	Sheep.	Swine.	Value of Live Stock.	Wheat, bushels of.	Rye, bushels of	Indian Corn, bushels of.
Maine, . . .	2.039.596	2.515.797	54.861.748	2.284.554	41.721	55	133.556	83·923	125.890	451.577	54.598	9.705.726	296.259	102.916	1.750.056
New Hampshire,	2.251.488	1.140.926	55.245.997	2.314.125	34.233	19	94.277	59.027	114.606	384.756	63.487	8.871.901	185.658	183.117	1.573.670
Vermont, . .	2.591.379	1.525.368	59.727.731	2.790.237	61.057	218	146.146	48.497	154.025	919.992	66.278	12.640.248	525.925	176.287	2.032.816
Massachusetts,	2.133.436	1.222.576	109.076.347	3.209.584	42.216	34	130.099	46.611	83.284	188.651	81.119	9.649.710	31.221	481.021	2.345.490
Rhode Island,	356.487	197.451	17.070.802	497.201	6.168	1	28.698	8.189	9.375	44.296	19.509	1,532.637	49	26.409	539.201
Connecticut, .	1.768.178	615 701	72.726.422	1.802.541	26.879	49	85.461	46.988	80.226	174.181	76.472	7.467.499	41.762	600.893	1.935.043
New York. . .	12.408.968	6.710.029	554.546.642	22.084.929	447.014	963	931.324	178.909	767.406	3.453.241	1.018.252	73.570.499	13.121.498	4.148.182	17.858.400
New Jersey, .	1.767.991	984.985	120.237.511	4.425.509	63.955	4.089	118.736	12.070	80.455	160.488	250.370	10.679.291	1.601.190	1.255.578	8.759.704
Pennsylvania, .	8.628.619	6.294.728	497.876.099	14.722.541	350.398	2.259	530.224	61.527	562.195	1.822.357	1.040.366	41.500.053	15.367.691	4.805.160	19.835.214
Delaware, . .	580.862	375.282	18.880.031	510.279	13.852	791	19.248	9.797	24.166	27.503	56.261	1.849.281	482.511	8.066	3.145.533
Maryland, . .	2.797.905	1.836.445	87.178.545	2.463.443	75.684	5.644	86.859	34.135	98.595	177.902	352.911	7.997.634	4.494.680	226.014	11.104.631
Dist. Columbia,	16.267	11.187	1.730.460	40.320	824	57	813	104	123	150	1.635	71.643	17.370	5.509	65.230
Virginia, . .	10.361.155	15.792.176	216.401.441	7.021.772	272.409	21.480	317.619	89·513	669.137	1.310.004	1.830.743	33.656.659	11.232.616	458.930	35.254.319
North Carolina,	5.453.977	15.543.010	67.891.766	3.931.532	148.693	25.259	221.799	37.309	434.402	595.249	1.812.813	17.717.647	2.130.102	229.563	27.941.051
South Carolina,	4.072.651	12.145.049	82.431.684	4.136.354	97.171	37.483	193.244	20.507	563.935	285.551	1.065.503	15.060.015	1.066.277	43.790	16.271.454
Georgia, . . .	6.378.479	16.442.900	95.753.445	5.894·150	151.331	57.379	324.223	73.286	690.019	560.435	2.168.617	25.728.416	1.088.534	53.750	30.080.099
Florida, . . .	349.049	1.236.240	6.323.109	658.795	10.848	5.002	72.876	5.794	182.415	23.311	209.453	2.880.058	1.027	1.152	1.996.809
Alabama, . .	4.435.614	7.702.067	64.323.224	5.125.663	128.001	59.895	227.791	66.961	433.263	371.880	1.904.540	21.690.112	294.044	17.261	28.754.048
Mississippi, .	3.444.358	7.046.061	54.738.634	5.762.927	115.460	54.547	214.231	83.485	436.254	304.929	1.582.734	19.403.662	137.990	9.606	22.446.552
Louisiana, . .	1.590.025	3.939.018	75.814.398	11.576.938	89.514	44.849	105.576	54.968	414.798	110.333	597.301	11.152.275	417	475	10.226.373
Texas, . . .	639.107	14.454.669	16.398.768	2.133.731	75.419	12.364	214.758	49.982	636.805	99.098	683.914	10.266.880	41.689	3.108	5.926.611
Arkansas, . .	781.531	1.816.684	15.265.245	1.601.296	60.197	11.559	93.151	34.239	165.320	91.256	836.727	6.647.969	199.639	8.047	8.893.939
Tennessee, . .	5.175.173	13.808.849	97.851.212	5.360.220	270.636	75.303	250.459	86.255	414.051	811.591	3.114.111	29.978.016	1.619.386	89.163	52.276.223
Kentucky, . .	11.368.270	10.972.478	154.339.262	5.169.037	315.682	65.609	247.475	62.074	443.763	1.102.121	2.861.163	29.591.387	2.140.822	415.073	58.675.291
Ohio, ...	9.851.493	8.146.000	358.758.603	12.750.585	463.397	3.423	544.499	65.381	749.067	3.942.929	1.964.770	44.121.741	14.487.351	425.718	59.078.695
Michigan, . .	1.929.110	2.454.780	51.872.446	2.891.371	58.506	70	99.676	55.350	119.471	746.435	205.847	8.008.734	4.925.889	105.871	5.641.420
Indiana, . . .	5.046.543	7.746.879	136.385.173	6.704.444	314.299	6.599	284.554	40.221	389.891	1.122.493	2.263.776	22.478.555	6.214.458	78.792	52.964.363
Illinois, . . .	5.039.545	6.997.867	96.133.290	6.405.561	267.653	10.573	294.671	76.156	541.209	894.043	1.915.910	24.209.258	9.414.575	83.364	57.646.984
Missouri, . .	2.924.991	6.767.937	63.057.482	3.965.945	223.593	41.508	228.553	111.268	445.615	756.309	1.692.043	19.766.851	2.966.928	44.112	36.069.543
Iowa, ...	824.682	1.911.382	16.657.567	1.172.869	38.536	754	45.704	21.892	69.025	149.960	323.247	3.689.275	1.530.581	19.916	8.656.799
Wisconsin, . .	1.045.199	1.931.159	28.528.563	1.641.568	30.179	156	64.339	42.801	76.293	124.892	159.276	4.879.385	4.286.131	81.253	1.988.979
California, . .	62.324	3.831.571	3.874.041	103·483	21.719	1.666	4.280	4.780	253.599	17.574	2.776	3.351.058	17.328		12.236
Minnesota, . .	5.035	23.846	161.948	15.981	860	14	607	655	740	80	734	92.859	1.401	125	16.725
Oregon, . . .	132.857	299.951	2.849.170	183.423	8.046	420	9.427	8·14	24.188	15.382	30.325	1.876.189	211.943	106	2.918
Utah, ...	16.333	30.516	311.799	84.288	2.429	325	4.861	4 86	2.429	3.262	914	546.968	107.702	210	9.999
New Mexico. .	166.201	124.370	1.653.952	77.960	5.079	8.654	10.635	12.187	10.085	377.271	7.314	1.494.629	195.516		365.411
	118435.178	184.596.025	3266.925.537	151.605,147	4.325.652	559.670	6.391.946	1.698.261	10.265.180	21.620.482	30.315.719	543.822.711	100.479.150	14.188.457	592.141.230

PRODUCTIONS OF AGRICULTURE IN THE UNITED STATES.—SEVENTH CENSUS.—1850.

STATES.	Oats, bushels of.	Rice, lbs. of.	Tobacco, lbs. of.	Ginned Cotton, bales of 400 lb. each	Wool, lbs. of.	Peas and Beans, bushels of.	Irish Potatoes, bush. of.	Sweet Potatoes, bush. of.	Barley, bushels of.	Buckwheat, bushels of.	Value of Orchard produc's in Dol's.	Wine, gallons of.	Valve of Produce Market Gardens	Butter, lbs. of.	Cheese, lbs. of.
Maine, . . .	2.181.037				1.364.034	205.541	3.436.040		151.731	104.523	342.865	724	122.387	9.243.811	2.434.454
New Hampshire,	973.381		50		1.108.476	70.856	4.304.919		70.256	65.265	248.563	344	56.810	6.977.056	3.196.563
Vermont, . .	2.307.714				3.410.993	101.859	4·947.351		42.157	208.699	315.045	659	18.853	11.871.451	8.729.834
Massachusetts,	1.165.106		138.346		585.136	43.709	3.585.384		112.385	106.095	463.995	4.688	600.020	8.071.370	7.088.142
Rhode Island,	215.232				129.692	6.346	651.029		18.875	1.245	63.994	1.013	98.298	995.670	316.508
Connecticut, .	1.255.738		1.267.624		497.454	19.090	2.689.725	80	19.099	229.297	175.118	4.269	196.874	6.498.119	5.363.277
New York, . .	26.552.814		83.189		10.071.301	741.636	15.398.362	5,6[illegible]	3.585.059	3.183.955	1.761.250	9.172	912.047	79.766.094	49.741.413
New Jersey, .	3.378.063		610		375.396	14.174	3.207.236	508.015	6.492	878.934	607.268	1.811	475·242	9.487.210	365.756
Pennsylvania, .	21.538.156		912.651		4.481.570	55.231	5.980.732	52.172	165.584	2.193.692	723.389	25.590	688.714	39.878.418	2.505.034
Delaware, . .	604.518				57.768	4.120	240.542	65.443	50	8.615	46.574	145	12.714	1.055.308	3.187
Maryland, . .	2.242.151		21.407.497		480.226	12.816	764.939	208.993	745	103.671	164.051	1.431	200.869	3.806.160	3.975
Dist. Columbia,	8.134		7.800		525	7.754	28.292	3.497	75	378	14.843	863	67.222	14.872	1.500
Virginia, . .	10.179.045	17.154	56.803.218	3.947	2.860.765	521.581	1.316.933	1.813.671	25.437	214.898	177.137	5.408	183.047	11.089.359	436.298
North Carolina,	4.052.078	5.465.868	11.984.786	73.849	970.738	1.584.252	620.318	5.095.709	2.735	16.704	34.348	11·058	39.462	4.146.290	95.921
South Carolina,	2 322.155	159.930.613	74.285	300.901	487.233	1.026.900	136.494	4.337.469	4.583	283	35.108	5.880	47.286	2.981.850	4.970
Georgia, . . .	3.820.044	38.950.691	423.924	499.091	990.019	1.142.011	227.379	6.986.428	11.501	250	92.776	796	75.500	4.640.559	46.976
Florida, . . .	66.586	1.075.090	998.614	45.131	23.247	135.359	7.828	757.226		55	1.280	10	8.721	371.498	18.015
Alabama, . .	2.965.697	2.311.252	164.990	564.429	657.118	892.701	246.001	5.475.204	3.958	348	15.408	220	84.821	4.008.811	31.412
Mississippi, .	1.503.288	2.719.856	49.960	484.293	559.619	1.072.757	261.482	4.741.795	229	1.121	50.405	407	46.256	4.346.234	21.191
Louisiana, . .	89.637	4.425.349	26.878	178.737	199.897	161.732	95.632	1.428.453		3	22.359	15	148.329	683.069	1.957
Texas, . . .	178.883	87.916	66.897	57.596	131.374	179.332	93.548	1.323.170	4.776	59	12.605	99	12.254	2.326.556	91.619
Arkansas, . .	656.183	63.179	218.936	65.346	182.595	285.738	193.832	788.149	177	175	40.141	35	17.150	1.854.239	30.088
Tennessee, . .	7.793.086	258.854	20.148.932	194.532	1.364.378	369.321	1.060.844	2.777.716	2.737	19.427	52.894	93	97.183	8.139.585	177.681
Kentucky, . .	8.201.311	5.688	55.501.196	758	2.297.403	202.574	1.492.487	998.184	95.343	16.097	106.160	8.093	293.120	9.877.868	213.784
Ohio, ...	13.472.742		10.454.449		10.196.371	60.168	5.057.769	187.991	354.358	638.064	695.921	48.207	214.204	34.449.379	20.819.542
Michigan, . .	2.866.056		1.245		2.043.283	74.254	2.359.897	1.177	75.249	472.917	132.650	1.654	14.738	7.065.878	1.011.492
Indiana, . . .	5.655.014		1.044.620		2.610.287	35.773	2·083.337	201.711	45.483	149.740	324.940	14.055	72.864	12.881.535	624.564
Illinois, . . .	10.087.241		841.394	14	2.150.113	82.814	2.514.861	157.433	110.795	184.504	446.089	2.997	127·494	12.526.543	1.278.225
Missouri, . .	5.243.476	700	17.100.884		1.615.860	45.974	934.627	332.120	9.631	23.590	512.527	10.563	99.454	7.792.499	202.122
Iowa, ...	1.524.345	500	6.041		373.898	4.775	276.120	6.243	25.093	52.516	8.434	420	8.848	2.171.188	209.840
Wisconsin, . .	3.414.672		1.268		253.963	20.657	1.402.077	879	209.602	79.876	4.823	113	32.142	3.633.750	400.283
California, . .			1.000		5.520	2.292	9.292	1.000	9.712		17.700	58.055	75.275	705	150
Minnesota, . .	30.582				85	10.002	21.145	200	1.316	515			150	1.100	
Oregon, . . .	65.146		325		29.686	6.566	91.326				1.271		90.241	211.461	36.980
Utah, ...	10.900		70		9.222	289	43.968	60	1.799	332			23.868	83.309	30.998
New Mexico. .	5		8.467		32.901	15.688	3		5	100	8.231	2.663	6.679	111	5.848
	146,533.216	215.312.710	199.739.746	2.468.625	52.518.143	9.219.642	65.781.751	38 2·5.811	5.167.213	8.955.945	7.720.862	221.249	5.270.130	312.948.915	105.539.599

PRODUCTIONS OF AGRICULTURE IN THE UNITED STATES.—SEVENTH CENSUS.—1850.

STATES.	Hay, tons of.	Clov'r seed bushels of.	Other grass seeds, bush. of.	Hops, lbs. of.	HEMP. Dew Rotted, tons of.	HEMP. Water Rotted, tons of.	Flax, lbs. of.	Flax Seed, bush. of.	Silk Cocoons, lbs. of.	Maple Sugar, lbs. of	Cane sugar, hhds. of 1,000 pounds.	Molasses, gallons of.	Beeswax and honey lbs. of.	Value of homemade manufa'es.	Value of animals slaughtered.
Maine, . . .	755.889	9.097	9.214	40.120			17.081	580	252	93.54[illegible]		3.167	189.618	513.599	1.646.773
New Hampshire,	598.854	829	8.071	257.174			7.65[illegible]	18[illegible]	4.191	1.294.863		9.811	117.140	393.455	1.522.873
Vermont, . .	866.989	769	14.996	258.513			20.75[illegible]	939	208	5.980.955		5.997	249.432	278.331	1.871.468
Massachusetts,	651.807	1.002	5.085	121.595			1.162	72	7	795.525		4.693	59.508	205.333	2.500.924
Rhode Island,	74.818	1.328	3.708	227			85	[illegible]		[illegible]		4	6.347	26.495	667.486
Connecticut, .	516.131	13.841	16.608	554			17.928	703	328	50.796		665	93.304	192.252	2.202.266
New York, . .	3.728.797	88.222	96.473	2.536.299	1	3	940.577	57.96[illegible]	1.774	10.357.484		56.529	1.756.196	1.280.333	13.573.983
New Jersey, .	435.950	28.280	63.051	2.133			182.965	16.525	23	2.197		954	156.694	112.781	2.638.552
Pennsylvania, .	1.842.970	125.030	53.913	22.[illegible]88	282	2.006	528.079	41.650	285	2.326.525		50.652	838.509	749.132	8.219.848
Delaware, . .	30.159	2.525	1.403	348		570	11.050	85[illegible]				50	41.248	38.121	373.665
Maryland, . .	157.956	15.217	2.561	1.870	63		35.686	2.44[illegible]	39	47.740		1.430	74.802	111.821	1.954.800
Dist. Columbia,	2.279	3		15									550	2.075	9.038
Virginia, . .	369.098	29.727	23.428	11.506	90	51	999.450	52.31[illegible]	517	1.227.665		40.322	880.767	2.156.312	7.503.006
North Carolina,	145.662	576	1.275	9.246		3	593.796	38.196	229	27.932		704	512.289	2.086.522	5.767.866
South Carolina,	20.925	376	30	26			333	55	123	200	671	15.904	216.281	909.525	1.302.637
Georgia, . . .	23.449	132	428	261		73	5.387	622	813	50	1.644	216.150	732.514	1.838.968	6.339.762
Florida, . . .	2.510		[illegible]	14			50		6		2.752	352.893	18.971	75.582	514.685
Alabama, . .	32.685	138	547	276		70	3.841	67	167	643	8.242	83.428	897.021	1.934.129	4.823.485
Mississippi, .	12.505	84	533	473	7		6.65	26	2		388	18.318	397.460	1.164.020	3.636.582
Louisiana, . .	25.752	2	97	125					29	255	226.001	10.931.177	96.701	139.232	1.458.990
Texas, . . .	8.279	10		7			1.048	26	22		7.351	441.638	380.532	255.719	1.106.032
Arkansas, . .	3.977	90	436	157		15	12.291	321	38	9.330		18	192.338	638.217	1.162.913
Tennessee, . .	74.092	5.096	9.118	1.032	3.913	1.183	367.807	18.905	1.923	158.557	248	7.223	1.036.572	3.137.710	6.401.765
Kentucky, . .	113.655	3.230	21.451	5.304	40.936	14.756	7.793.123	75.579	1.301	437.345	197	40.047	1.156.939	2.456.838	6.459.318
Ohio, ...	443.142	102.197	37.310	63.731	140	50	446.937	118.880	1.552	4.588.209		308.308	804.275	1.712.196	7.430.243
Michigan, . .	404.931	16.989	9.785	10.663	166	37	6.994	1.421	8	2.438.987		19.823	359.232	340.947	1.328.327
Indiana, . . .	403.230	18.321	11.951	92.796	341	1.071	584.469	36.888	387	2.921.642		180.325	935.329	1.631.039	6.567.935
Illinois, . . .	601.952	3.427	14.380	3.551	142	141	160.063	10.785	47	248.904		8.354	869.444	1.155.902	4.972.286
Missouri, . .	116.743	615	4.337	3.130	17.207	5.351	520.008	13.641	186	178.750		5.636	1.327.812	1.663.016	3.349.517
Iowa, ...	89.055	342	2.096	8.242			62.553	1.959	246	78.497		3.162	321.711	221.292	821.164
Wisconsin, . .	275.662	483	342	15.930	300	2	68.393	1.191		610.976		9.874	131.065	43.621	920.178
California, . .	2.038		483											7.000	100.173
Minnesota, . .	2.019									2.950			80		2.840
Oregon, . . .	373	4	22	8			640					24			164.530
Utah, ...	4.805	2		50			570	5				58	10	1.392	67.985
New Mexico. .												4.236	2	6.033	82.125
	12.839,141	467.983	413.154	3.467.514	63.588	25.360	13.391.415	562.810	14.763	33.980.457	247.778	12.821.574	14.850.627	27.478.931	119.475.020



A COTSWOLD RAM.

THE PROPERTY OF MR. GEORGE HEWER, OF LEY GORE, NEAR NORTHLEACH, GLOUCESTERSHIRE, ENGLAND, FOR WHICH THE FIRST PRIZE OF $125 WAS AWARDED AT THE MEETING OF THE ROYAL AGRICULTURAL SOCIETY, HELD AT WINDSOR, JULY, 1851.

COTSWOLD SHEEP.

The meaning of the name Cotswold, is a sheep-fold, and a naked hill or plain. The Cotswold hills, the native tract of this ancient breed of sheep, are of moderate elevation, covered with sweet and nutritious herbage; and though formerly a bleak, wild, and uncultivated district, given wholly to sheep walks, it is now enclosed, cultivated, and greatly improved. The sheep also have undergone a like improvement; so that they now rival the New Leicester in symmetry and early maturity, while they possess a heavier fleece and carcass. They have been crossed with the Leicester with decided advantage; their size and fleece being slightly reduced, but their tendency to fatten and early maturity, as well as the quality of the mutton, are much improved. They have also been crossed with the Hampshire Downs, thereby improving still more the quality of the mutton, but greatly reducing the weight of wool and carcass. The New Oxfordshire breed is supposed to be nothing more than the Cotswold improved by crossing with Leicesters and Hampshire Downs.

The Cotswold sheep have been imported into this country to some extent, and are held in high estimation by those who possess them. Their wool is said to be finer, longer, and heavier, than the improved Leicester; we, however, think that it is by no means a settled point. Their mutton is said to be superior, the fat and lean being more intimately mixed than the Leicesters. The South Down, however, is beyond all comparison the favorite mutton, and is driving all others out of Smithfield market, bringing from two to three cents more per pound than the large sheep.

In the June number, page 177, we stated that in some experiments then being made by Mr. Lawes, on the fatting qualities of several breeds of sheep, it was found that the Hampshire Downs fatted more easily than the Sussex Downs; and that the Cotswold yielded more fat, &c., for a given amount of food, than the Hampshire Downs, or New Oxfordshire sheep. These experiments are not yet finished or published, but a recent letter from Mr. Lawes informs us that the Cotswold increase more for a given amount of food than either the Lincoln, Leicester, New Oxfordshire, or the Hampshire and Sussex Downs. Yet, as we have before said, it is doubtful whether it is good economy to keep these large, coarse sheep, instead of the delicate Sussex Downs; the difference in the price of the mutton being so considerable in the principal English markets. These large sheep, however, yield a greater amount of tallow in proportion to lean meat, than the small breed; and as tallow commands a higher price here than mutton, (the reverse being true in England,) will not butchers pay more, or can they not afford to pay more per pound, for the large breed than for the South Downs and Merinos? The butchers in Rochester we know prefer Leicester to South Down sheep on this very account, the taste of their customers not being so fastidious as the Cockney's, and the inside tallow they obtain makes a profit in favor of large sheep.

The cut on the opposite page is a good representation of probably the best Cotswold ram in Great Britain, for it was awarded the first prize of $125 at the great Cattle Fair of the Royal Agricultural Society of England, held at Windsor in 1851. If further experiments shall confirm the present indications that this breed will lay on more fat for a given amount of food than any other, more attention will be paid to it here in future than it has yet received. For these reasons we have been at considerable expense to give the accompanying engraving. The Cotswold being a very long-wooled, heavy sheep, they will not probably stand the severe winter of the northern and western States as well as the South Down, Merino, or other smaller, close-wooled sheep. The Teeswater, Lincoln, New Oxfordshire, and Leicester sheep, are also open to the same objection; though farmers who keep the Leicesters and other long-wooled sheep in this district and Canada, say that they stand the winter well.

Horticultural Department.

CONDUCTED BY P. BARRY.

The attention given at the present time to the culture of dwarf fruit trees, both in the garden and orchard, in all parts of the country, renders the subject one of the most important in the whole range of horticulture; and at the hazard of repeating what we may have heretofore said, we will take this occasion to offer a few hints on their management. We are well convinced from hundreds of letters received from those who are engaged or engaging in their culture, that with all the information that has been in various ways elicited within a year or two past, there yet exists a very general want of that particular kind of knowledge—and not only knowledge, but of that earnestness and appreciation—so indispensable to success. A vast number of persons who never before gave a thought to fruit culture, are all at once tempted into it by the irresistible attractiveness of some dwarf trees, not over three or four years old, which they have seen loaded with magnificent fruit in a neighbor's garden. They look upon this as an example of fruit culture "made easy," and as a proof—as proof it is—that half a life time need not be spent in waiting for their trees to bear. A resolution is at once formed to plant a garden, perhaps an orchard. The ground is plowed after a fashion, the nearest oracle is consulted in regard to the *best sorts*, the trees are procured and planted; and there the work ends. The next year, or year after, the trees are expected to be loaded with such beautiful fruit as those which first awoke their enthusiasm and enticed them to become planters; but alas! where are they? Not one to be seen, perhaps; and not only that, but the trees generally are wanting in that vigorous, luxuriant appearance, that indicates a perfect state of health; they are, in fact, *unthrifty* and *unfruitful*, looking quite as much like dying as living. At this stage of the proceedings, it is suggested by a knowing one that these dwarf trees are a "humbug." "I told you so." Thus results, and thus will result, the hasty, ill-advised planting enterprizes of a multitude of persons. We are by no means drawing upon the imagination in this matter, and we have not the least doubt but that many who read this will recognise the course of proceeding pointed out as bearing a striking resemblance to theirs.

We are very far from being disposed to aggravate the difficulties of fruit culture, or to try to persuade people that there is any mystery in the art of good cultivation, or any obstacle in the way, that common care and skill can not remove. On the contrary, we aim, and have always aimed, at giving every encouragement in our power consistent with the truth. We must confess, however, that we are frequently surprized at the comparative recklessness with which people embark in planting—spend perhaps ten, twenty, or even fifty dollars for trees, without possessing a single correct practical idea of their treatment; without having consulted any reliable work, or engaged the assistance of a competent person; relying merely upon the uncertain light of a few vague ideas picked up from some very questionable sources. What else can such people reasonably expect but a failure? And if a failure happen them, they should at once take the blame to themselves, and hasten to make amends.

Having thus alluded to what may be termed *mal practice*, we will sketch very briefly the course we would recommend. When a plantation of dwarf trees has been determined upon, whether of 10 trees or 1000, the following considerations should be carefully considered, and all the information in regard to them be obtained from the most reliable sources:

First, *The Soil.* Is it of a suitable character for the purpose? Is it too wet, or too dry? Does it require draining, subsoil plowing, or trenching and manuring? It should

always be understood that dwarf trees require a soil of the best quality; and that, too, kept in the best condition. The roots do not extend like the roots of standard trees, and must obtain a liberal supply of food from a small compass. When the soil is right in regard to dryness, depth, and richness, the next consideration should be —

The Trees. These should be on stocks most suitable for dwarfing the species; they should be healthy, vigorous, and of such growth as to be easily moulded into the form in which they are to be grown. The matter of stocks is one of the most important, and should be considered as though the entire success of the undertaking depended upon it. There is yet, even among experienced growers of trees, a very great want of knowledge on the subject. Most people act with a degree of impatience that in many cases proves fatal to their success. They must have large trees — bearing trees. Tree dealers, as a general thing, say: "Our customers want *large* trees, above all." No man who proceeds upon this principle, can make a fruit garden or orchard that will be either successful or satisfactory. What is it to wait a year, or two years even, compared to having beautiful instead of unsightly trees? We know a gentleman who is at this moment rooting up a plantation made on the principle of the "larger the better," to make room for young, well-shaped trees. Taste and experience will lead to this in time.

Next comes the question of *Varieties.* Here, instead of making out a list of the *best* without regard to circumstances, such should be chosen, and such only, as have been proved to succeed well on the stocks used for dwarfing, and are of such habits of growth as will make their training a thing practicable. In order to secure these objects, it may be necessary to dispense with favorite and first rate sorts; for it is far better to succeed *well* with a good or second rate sort, than to fail with one a degree better. Neither should a large number of varieties be made a special object; for that and entire satisfaction otherwise can rarely be obtained.

Next comes the arrangement and the planting, involving many practical details to which we can not now refer particularly.

And when all this is done, there is the *After Culture;* for trees can take care of themselves no more than domestic animals, and more especially when it is desired to maintain and enjoy a high state of artificial culture. An annual pruning, and pruning and pinching at intervals, are necessary; the nature and objects of which must be studied until well understood. Then there is manuring, which must be done in such a way as to meet the wants of the tree, keeping in view the nature of the soil; for the same quantity or kind of manure will not be applicable in all cases.

We will close by recommending to all who are cultivating dwarf fruit trees, to mulch them with half decomposed stable manure from three to six inches deep, on the commencement of winter. This excludes the frost from the roots near the surface, and the snow and rains dissolve it, and send down its best soluble parts to be taken up by the roots the following spring. This supplies the exhaustion of the previous year, and the trees are sustained in an uniform vigor. Thus mulching accomplishes a two-fold object, and may with great advantage be applied to other than dwarf fruit trees.

NUMBER OF PLANTS ON AN ACRE, AT GIVEN DISTANCES APART. — The following table may be useful to the gardener, in showing the number of plants or trees that may be raised on an acre of ground, when planted at any of the undermentioned distances. T. T.

Distance apart.	*Number of Plants.*	*Distance apart.*	*Number of Plants.*
1 foot,	43,560	9 feet,	537
1½ feet,	19,360	12 "	306
2 "	10,890	15 "	193
2½ "	6,969	18 "	134
3 "	4,840	21 "	98
4 "	2,722	24 "	75
5 "	1,742	27 "	59
6 "	1,210	30 "	48

GARDEN HINTS FOR NOVEMBER.

Transplanting Trees, in many localities, may be continued through all this month; but the earlier it can be completed, the better. No autumn planted tree can be considered in a safe condition until securely staked, if at all top heavy, and well mulched around the roots. Delicate tall standards, such as the pithy Pawlonia and Catalpa, should be mulched on the stem also—wrapped with straw or dry moss. Trees "heeled in" (laid in by the roots) should be in perfectly dry, light soil, and will be better in a slanting position than erect. Peach and other tender trees would be the better for a covering of evergreen boughs. Care should be taken to clear away all harbor for vermin near trees that are heeled in, as well as in the vicinity of all fruit tree plantations. A few days work *now* will probably save many valuable trees. Every spring we hear complaints from all quarters, about the damages sustained from vermin.

Raspberries should be laid down and covered with a few inches of earth. This is less labor than tying to stakes, and covering with straw.

Strawberry beds should be mulched either with manure, tan-bark, or decayed leaves, leaving the heart of the plant uncovered.

Mulch every tree in the fruit garden. Protect all tender and half hardy trees and shrubs, or rare trees recently planted and not yet well established. Mulch them at the roots with leaves or tan-bark, put around them a few stakes tied together at the top, and cover with straw or mats. It is bad to bind plants closely during winter.

Tender Roses can be protected by laying down and covering with leaves, tan-bark, or light earth.

Hardy Bulbous Roots, such as hyacinths, tulips, crocus, crown imperials, lilies, narcissus, &c., can be planted as long as the ground remains open; but the beds should be immediately covered a few inches deep with leaves, litter, or tan. All tender border plants should be protected in the same way.

Dahlia Roots, *Gladiolus*, *Tigridias*, *Tuberoses*, and other tender roots and bulbs, should be taken up in good season, as soon as the frost has killed the stems, dried well, and put away on shelves in a dry cellar, or in boxes with sand. It is important to put them away in a *perfectly dry* state.

Operations on the ground, such as digging, manuring, trenching, levelling, &c., can be carried on in many places, even in the north, through the month of December. An inch of frost is no obstacle to such labor, and it never should be deferred till spring.

The Fruit Room will require attention. Apples for use during the latter part of winter and spring, should be put up in dry, clean barrels, and kept in a cellar as cold as possible not to freeze, and perfectly dry. Winter pears may be kept on shelves in a dry, cool cellar; or they may be put in clean boxes, between layers of clean, dry straw, or hay. The longest keepers may be put in the bottom, so as to get them out easily as their season comes. Those who may not have a cellar so dry and cool as it ought to be for pears, can put them among dry hay or straw in small boxes, and place these in other boxes in a dry, cool loft. If freezing be apprehended, a covering of mats or cloth may still be added to secure them. They should be taken into a warm room (60 or 70 deg.) a week or two before they are wanted. *The Root Cellar* will require attention. All decaying vegetables should be instantly removed.

On the 7th of October the beautiful residence of the late A. J. Downing, at Newburgh, was disposed of at public sale. It contained about five acres; but from the skill of its arrangement it was made to appear of much larger extent. It contains, we think, the finest specimens of ornamental trees in this country. It sold for $18,000, and was purchased by a gentleman residing in Newburgh.

NEW FRENCH CHERRIES.

BY B. DESPORTES, OF ANDRE LE ROY'S NURSERIES, ANGERS, FRANCE.

Some years ago Mr. Le Roy formed, in his nurseries at Angers, a school or experimetal plantation of fruit trees, which has enabled us to prove a very large number of fruits formerly known to us only by name. The spring of this year was very favorable, and we have had an abundant crop on all our fruit trees. We shall profit by this in giving to the readers of the *Genesee Farmer* a description of five varieties of cherries, new or very little known:

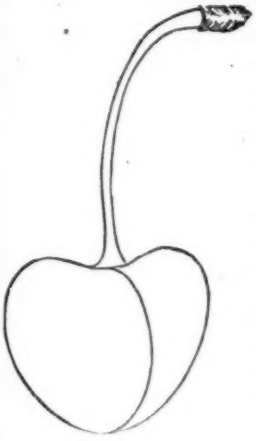


Fig. 1.

Bigarreau Esperin. (Fig. 1.)—A superb cherry, received from Major Esperin, of Belgium. It has been disseminated only a few years, and we have fruited it this season for the first time. I am happy to be able to say that it is every way worthy of all the eulogies which accompanied its appearance in the horticultural world. *Fruit* very large, heart-shaped. *Surface* uneven, one side flattened, the other round, with a slight suture. *Stalk* short, stout, and planted in a deep cavity. *Color* blood red on the sunny side; yellow in the shade. *Flesh* white, slightly adhering to the stone, which is large, long, and channelled. Season of maturity, middle of July. It is necessary that it be well ripened before gathering, for then only does it possess all its excellent qualities. The *leaves* are large, lanceolate, deeply toothed, and have two glands on the petiole. The *tree* is large and vigorous. *Shoots* erect, long, and stout.

Fig. 2.

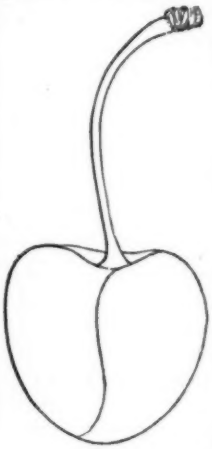


Fig. 3.

Cerise de la Besnardiere. (Fig. 2.)—*Fruit* medium size, roundish, flattened at the stalk, and divided on one of its sides by a light suture. *Stalk* one and a half to two inches long, large, and planted in a round, shallow cavity. *Color* bright red throughout. *Flesh* rosy white, parting freely from the stone; tender, succulent, slightly acid. *Stone* small, round, and smooth. Ripe beginning of July. It is moderately productive. *Leaves* small and finely toothed. The *tree* resembles the *May Duke* in its general appearance, grows vigorously, and makes a fine pyramid.

Fig. 4.

Bigarreau Marcelin. (Fig. 3.)—This is certainly one of the most beautiful of cherries. Very large, heart-shaped, flattened on both sides, with a suture on one. *Stalk* short, stout, curved, and planted in a shallow, irregular cavity. *Color* pale

red in the shade, bright red in the sun at maturity. *Flesh* white, firm, juicy, somewhat adherent. *Stone* large, rounded on one side. Season, middle of July. I regret much not to know the originator of so good a fruit. The *tree* is vigorous. *Shoots* long, stout, and erect.

Guigne precoce de Tarascon. (*Tarascon Early Guigne.*) Fig. 4.—This is a magnificent large cherry, heart-shaped, very regular, slightly compressed on both sides. *Stalk* usually very long, slender, and wavy; largest at the point of union with the branch. *Flesh* tender, flesh-colored, veined with rose and white, adheres to the stone, which is large and irregular. *Color* bright red, very brilliant at maturity. *Leaves* long, quite regular. *Tree* vigorous. *Shoots* large and spreading, the buds prominent; the young shoots are veined and dotted with grey. Ripe 10th of June. This is a superb and excellent cherry, and merits a place in every garden. I do not know its origin.

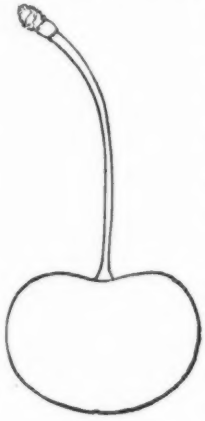


Fig. 5.

Duchesse de Galnau Cherry. (Fig. 5.)—*Fruit* very large, round, compressed at both extremeties. *Stalk* short, curved, and jointed at the end next the branch. *Color* bright red, sometimes deep red, even blackish red at maturity. *Flesh* tender, adhering to the stone, clouded with violet red, juicy, slightly acid, very agreeable. *Stone* round and smooth. *Leaves* short, slightly toothed, and furnished with two glands on the petiole. *Tree* of medium vigor, pyramidal in form. *Shoots* short and erect, short-jointed. In general habit similar to the *May Duke.* Ripe end of June. This is a variety of great merit.

I shall at all times, as opportunity may offer, be happy to make known to a country so eminently horticultural as the Genesee, the progress and discoveries which we make at Angers.

WESTERN EXHIBITIONS.

By permission of the writer, Dr. J. A. Kennicot, of The Grove, Illinois, we extract from a private letter the following notes on the late agricultural and horticultural exhibitions in Wisconsin and Illinois. The Great West is awake in earnest. The Ohio State Fair eclipsed all other fairs of the kind ever held in this country. Michigan, Illinois, and Wisconsin, are following. Hear what the Doctor says:

"I first attended the Lake County (Illinois) Fair of their united Agricultural and Horticultural Societies, in the very pretty town of Waukegan, formerly Little Fort. A good first show of the former, and a very excellent one, as usual, of the latter. Splendid horses, very fine full blooded and grade cattle, and sheep and swine quite creditable. Farm products, in general, very fair; but implements not so abundant. Fruits and flowers, beyond all expectation, choice and abundant; apples being the great feature, but pears quite encouraging; and plums too, and even a considerable display of peaches under name; grapes, also, in variety, and very well ripened, in fine bunches; glorious dahlias, &c., &c. J. Ambrose Wight, formerly the editor of our *Prairie Farmer*, gave us one of his learned and spicy addresses—full of wit, and beauty, and practical illustrations. The *Prairie Farmer* will miss Mr. Wight.

"Our Convention, or meeting of 'Northwestern Fruit Growers' Association,' at Dixon, was *more* than respectably attended—over fifty regular *paying* members present, and a house full of those who came to learn. *Such* a show of apples I never saw before—large, fair, and in great variety and abundance—the product of an hundred orchards. Plums and peaches, none to speak of, and only a slim show of pears. A good show of grapes. We had members from five western States; and we all *worked*, and most of us *talked* a little, though no long speeches, except perhaps one from your friend the 'old doctor,' who was called upon, at the public session, to say something on 'Industrial Education,' and the death of our beloved leader—Downing. We passed appropriate resolutions on the last theme, and unanimously endorsed the principle of education 'in a knowledge of things next to us.' But you will get our proceedings, which are to be printed in pamphlet.

"From Dixon we went directly to Milwaukie, to attend the Wisconsin State Fair; and a great Fair the Badgers have had. Their officers all courteous and full of energy and good will; the grounds, a private race course, very extensive and beautiful; and the weather fine during the two first days. Horses of all breeds, from the imported Shetland pony up to the largest and boniest cart horse. It struck me, however, (though I am not learned in these matters,) that the contributors in this line were more *liberal* than *select* in their display of show horses. There were some great goers though, and of *their* merits I could better judge. The *grades* in the cattle line were most abundant; but there were some beautiful animals of pure blood, which, as competent eastern judges assured me, I was not wrong in believing equal to most shown in eastern States. Sheep were there in plenty, and in all their pure excellence and desirable grades. Wisconsin, you know, is a wool-growing state. Swine were there, good pigs too, most of them; and the symptoms of the 'chicken fever' were unmistakable—a dozen or more large lots showing that the affection has reached Wisconsin.

"Bah! I see I have finished my sheet, and said nothing—all common place, if not out of place, as I know little about stock, *scientifically*.

"Well, the products of the farm, and especially the dairy, were abundant and good; and you may depend that the 'Badgers' have been digging in the right way, and that they are in earnest about this Society,—and they ought to be, for they have got the most *active*, as well as *intelligent* and *determined*, young Secretary that any Society can boast. He is as near like B. P. JOHNSON as a young man of little practical knowledge of agriculture, and but a year or two's experience in office, can possibly be. The Wisconsin State Agricultural Society is in luck, and if ALBERT C. INGHAM remains in his present position until he is thirty years old, (he is only twenty-three now) I predict great things for Wisconsin Agriculture.

"I can't praise the show of fruits and flowers, though both are respectable. Some good late plums; plenty of apples, not quite so large as those of Illinois, nor in so great variety; some pears and grapes, but no great variety. Dahlias, and other late flowers from Kenosha, from Capt. CAHOON I think, were decidedly good. Milwaukie did not show flowers as she might have done, though Mr. MESSENGER had fifty or sixty sorts of fine Green House plants, in good condition. The show of implements was respectable."

ANNUAL FALL EXHIBITION OF THE GENESEE VALLEY HORTICULTURAL SOCIETY.—This exhibition was held on the 22d and 23d of September. The show of fruits was the best (excepting peaches) ever seen in Rochester. The collections of apples and pears were as good as any, if not the best, we have ever seen; and when spread out on the tables, tastefully arranged, formed a museum of rare interest and beauty.

J. W. BISSELL, Esq., exhibited a fine collection of foreign grapes from his vinery, that attracted much attention.

JAMES VICK, JR., made a good show of annuals, that were very attractive. Asters, Balsams, Ten week Stocks, Phlox Drummondi, Godetias, Leptosiphons, Argemone, &c., were all fine.

The nurserymen made a good display of pot plants and cut flowers. Dahlias, the glory of these autumnal shows usually, were in a great measure wanting, in consequence of the dry weather and swarms of grasshoppers in August and September. C. J. RYAN alone made a fair display.

Mr. PHILO PARKS, of Victor, presented a collection of wild flowers from his farm.

A few fine vegetables were shown by Mr. THEODORE BACKUS, JOHN DONNELLAN, and C. F. CROSMAN.

Mr. VICK exhibited fine Lima beans, Mexican and White Mercer potatoes, and Stowell's sweet corn.

Superb watermelons were shown by JNO. DONNELLAN. Some of them were sold at the close of the exhibition, for the benefit of the Society, at five or six shillings each. Mr. DONNELLAN had on his table some fine *Rose winter Radish*, the seeds of which we brought from France.

The attendance of visitors was thin, owing to the prevailing sickness at that time; but those who were present, expressed themselves delighted with the whole affair.

ACKNOWLEDGEMENTS.—We are indebted to JAMES ROBY, Esq., of Brockport, for a basket of *White* and *Gray Doyenne* pears. The specimens of the latter were particularly fine. Mr. R. considers them in some respects superior to the *White*, and we agree with him. The tree is not quite so vigorous in growth as the *White*, but it is hardy and an abundant bearer.

We must take this occasion to say that the lands around Brockport are admirably adapted to the pear, and are destined soon to be largely devoted to its culture.

Also, to JAS. H. WATTS, for *Sheldon* pears, which were supposed last season to be the *Oswego Beurre*. Mr. W., in his note accompanying them, says: "The product of our own State, it having originated in Huron, Wayne county, we may indeed congratulate fruit-growers as well as fruit-lovers, that we have now found another *first rate* pear for them to add to their varieties for cultivation.

Ladies' Department.

FLOWERS AND FLOWER SEEDS.

We have received many letters from our female readers, thanking us for our gift of flower seeds, and detailing their methods of cultivation, and the result of their labors. Some beautiful boquets have graced our editorial table, the arrangement of which, as well as the perfection of the flowers, spoke well for the taste and skill of the fair cultivators. That some kinds have failed in some instances, is not strange. The art of cultivating even a dozen varieties of annuals is not learned in one season, and better learned by observation and practice than in any other way. Those who have cultivated flowers this summer with even partial success, will do better next, and will become the teachers of this beautiful art. Friends and neighbors will seek of them seeds, and instruction in their cultivation, which will be freely given; and thus a love of the beautiful in nature will spread over our happy land. Many plants, such as Ten week Stocks, Petunias, &c., that have not blossomed freely in the open ground, on account of late planting, may be taken up carefully and put in pots, when they will blossom in the house during winter.

Dwarf Convolvulus.—The Dwarf Convolvulus is a beautiful flower, with three distinct colors, blue, yellow, and white; the blue being of every shade, from purple to a delicate azure blue. We have also the white and striped. The species is a native of Spain, Portugal, Sicily, and the north of Africa, and was introduced into England from Portugal early in the seventeenth century. Some botanists suppose this species to have been originally only found in Barbary; but whether introduced or indigenous, it is now a common weed, both in Spain and Portugal. The flowers always fold in gloomy weather and at night. The French call it Belle-de-jour. When the seeds are sown, a shallow drill should be made for them, in which the seeds may be dropped and covered lightly. When the plants come up, they should be thinned so as to stand about an inch apart. They require a dry situation, and rather a rich, light soil. Sow early in the spring, and they will commence flowering in July, and continue until covered with snow. We have several beds now, (Oct. 26th,) exceedingly beautiful, that have been in blossom since early in July.

DWARF CONVOLVULUS.

The Convolvulus major, or *Morning Glory*, is too well known to need a description; it being one of the most common as well as the most beautiful and easily cultivated of our climbing annuals. It requires the same treatment as the Dwarf Convolvulus, but needs strings or poles on which to climb. It makes an excellent covering for arbors, porches, &c.

Editor's Table.

TRANSACTIONS OF THE WISCONSIN STATE AGRICULTURAL SOCIETY, FOR 1851.—We are indebted to ALBERT C. INGHAM, Esq., Secretary of the Wisconsin State Agricultural Society, for a copy of its Transactions for 1851. It is a well filled volume of 336 pages, and alike creditable to the Secretary, under whose directions, we presume, it was brought into existence, to the Society and State whence it emanates. Wisconsin has great Agricultural resources; and its citizens appreciate them, and proceed at once to their rapid and successful development. This is as it should be; for we do not doubt that the wise suggestions of Dr. LATHROP, in his Annual Address before the State Society, in behalf of education in general and a University in particular, will be responded to by the people of that young and promising commonwealth. To avoid the deterioration of their soil, they must early adopt a better system of tillage and husbandry than is pursued in older States.

THE HORTICULTURIST.—It will be seen by the Prospectus in our columns, that the *Horticulturist*, heretofore edited by the lamented DOWNING, has been purchased by J. VICK, JR., one of the editors of the *Farmer*, and is to be published in Rochester, edited by P. BARRY. Those who have read the Horticultural Department of the *Genesee Farmer* will need no guarantee that Mr. BARRY is eminently fitted for the post he has assumed, at the almost unanimous request of the Horticulturists of the country. Those of our readers who are turning their attention to the cultivation of Fruits and Flowers, or to beautifying their homes, would make a profitable investment in subscribing for the *Horticulturist*. The subscription price is reduced to $2 per year; an edition with Colored Plates is also to be published, at $4.

PEAS, AND PORK MAKING.—A friend, from St. Johnsbury, Vt., writes us that the article on Peas and Pork Making, in the September number, differed somewhat from his experience; that he had boiled peas once or twice for his hogs, but they would not eat them. Corn and peas are worth $1.00 per bush., and pork $8.00 per hundred nett, and thinks that at these relative prices it does not pay to feed hogs, except for home consumption.—He thinks that farmers in New England should commence feeding their cattle with hay, corn and roots in February, and have them fit for sale in April or May, when beef is highest. Can fat full grown animals on good hay alone, but growing animals require a little grain, or they will not fatten. In either case, he thinks it good economy to feed a little grain.

Our friend mistook our meaning in supposing us to recommend "boiling peas" for hogs. What we said was, that it was advisable to "soak them from 12 to 24 hours in cold water before feeding them to hogs." They are in consequence of soaking, more easy of mastication, and fewer pass through the animal undigested than when fed dry and hard. We know that hogs do not like "boiled peas," but they manifest no disrelish for them when soaked.

TRIAL OF IMPLEMENTS AT GENEVA, N. Y., JULY, 1852.—The following is a list of the Premiums awarded by the N. Y. State Agricultural Society to the successful competitors, at the trial of Implements, at Geneva, in July last. We should have given it last month, but preferred waiting for the official report. Here it is from the Journal of the Society.

Grain Reapers.—1st, T. D. Burrall, Geneva, Burrall's Reaper, Dip. and $50. 2d, J. H. Manny, Wadham's Grove, Illinois, Manny's Convertible Reaper, for grain or grass, 30. 3d, Seymour & Morgan, Brockport, 20.

Mowing Machines.—1st, J. H. Manny, Wadham's Grove, Illinois, Dip. and $50. 2d, Howard & Co., Buffalo, Ketchum's Mowing Machine, 30.

Grain Drills.—1st, P. Seymour, East Bloomfield, N. Y., Dip. and 25. 2d, Bickford & Huffman, Macedon, N. Y., 15. 3d, S. R. Tracy, Newark, N. Y., 10.

Horse Power on the Lever Principle.—1st, J. A. Pitts, Buffalo, Dip. and 25. 2d, Eddy, Dyer & Co., Union Village, Wash. Co., N. Y., 15.

Horse Power, endless chain principle.—1st, Emery & Co., Albany, Dip. and 25. 2d, E. W. Badger, Fly Creek, N. Y., 15.

Iron Horse Power.—1st, R. H. Wakely, McLean, Tompkins Co., Dip. and 25. 2d, Eddy, Dyer & Co., Union Village, N. Y., 15. 3d, J. A. Pitts, Buffalo, 10.

Threshing Machines, with cleaning apparatus.—1st, J. A. Pitts, Buffalo, Dip. and 10. 2d, Hall & Thompson, Rochester, 8.

Threshing Machines, without cleaning apparatus.—Eddy, Dyer & Co., Union Village, N. Y., Dip. and 10.

Seed Planters.—Joshua Woodward, Haverhill, N. H., Dip. and 10.

Cultivator, general purposes.—1st, S. R. Tracy, Newark, Wayne Co., Dip. and 10. 2d, Henry Howe, Canandaigua, 8.

Broadcast Sower.—Pierpont Seymour, East Bloomfield, Dip. and 10.

AUSTRALIAN WHEAT.—Several of our friends have requested some of our Australian Wheat, &c.—We had none in our possession at the time and were unable to procure any till the period of sowing was gone by. Another year, however, we shall procure a quantity in season, and shall be happy to send some to any who desire it. Some farmers who have tried it in this section, think it does not ripen early enough here, requiring a warmer climate than Western N. Y. The Multicaul Rye has been sent to all who asked for it.

Inquiries and Answers.

(T. Chase, Otego, N. Y.) The paper was labelled right. The sprig you sent is Sweet Mignonette.

(M. R. Britten, Spring Prairie, Wis.) The standard weight of Flax seed in New York, is 56 lbs.; of Timothy seed, 45 lbs. per bu.

Bees.—Having concluded to give a part of my attention to the raising of bees, I am obliged to make a few inquiries with regard to it. Bees are generally much affected in this part of the country with the miller, which has caused many to abandon the keeping of them. Do you know of any means by which the miller can be destroyed or prevented? Some say that bees should be kept in a house; but I neither know how the house should be constructed, nor how bees should be got into it. By giving what information you can with regard to this, in the "*Farmer*," you will greatly oblige a Canadian subscriber. James Hawksworth.—*Vienna, C. W.*

We give the above letter, and respectfully invite some one familiar with the subject to state what he regards as the best protection against the bee-moth; and the best plan for a bee-house. In the mean time, Mr. Miner's Bee Manual is recommended to our correspondent, as a work worthy of his perusal.

Swamp Muck.—In the month of August last, I deposited one hundred loads of swamp muck in my barn-yard. I propose to apply it to my corn land in the spring, a part of which is an apple orchard. Will it prove beneficial to next season's crop of corn, and also to the fruit trees? In your next number, please suggest the best method of preparing and applying this kind of manure. E. W. Bottum. —*Huron, N. Y.*

We have several times seen swamp muck applied to fair soils in Western New York, and never with any decided benefit. As an absorbent of stable or barn-yard manure, dry muck is valuable; because the ammonia developed in the manure neutralizes the organic acid in the muck that prevents its rotting, and the whole mass (muck and manure) decomposes together, and yields food for plants, apple trees included. All manure in barn-yards is liable to damage and waste from an excess of water; and the hauling of swamp muck into an open yard will not obviate the difficulty. A little water from rain or snow does no injury; but a good deal either carries off a part of the manure, or compels the farmer to haul some nine loads of water to his fields to convey thither one load of solids, whether straw, hay, muck, or dung. This involves a prodigious waste of labor, and can only be avoided by keeping yards in which manure is made, partly, or entirely sheltered from rain, and protected from the droppings of eves, or receiving running streams from without, as we have frequently witnessed.

The art of producing good manure is not so generally, nor so thoroughly understood, as it ought to be. The process of decay or rotting depends partly on the temperature, partly on the chemical nature of the matters operated upon, and partly on the fineness and degree of moisture of the materials. At another time, when our pages are less crowded than at present, we will discuss this interesting and important branch of farm economy, at length.

Winter Barley.—Mr. E. E. Fay, of Marengo, McHenry county, Illinois, wishes to obtain a small parcel of winter barley.

Both barley and oats endure with impunity the winters of the south in the cotton-growing States; but we have never seen either that would be likely to survive, if sown like wheat in autumn, the frosts of central Illinois.

Having written to Mr. Spader in relation to the Winter Barley noticed by him in the May number of the *Farmer*, Mr. S. has kindly sent us the following:

"Yours of the 18th inst. was duly received. In answer, I would say that in consequence of the prevalence of the cholera in many places on the route to your State Fair, I gave up attending as I had expected. Respecting my crop of Barley, I will say that the yield was not so good as the year previous—on an average, I suppose, about 40 bu. per acre—which I think was owing to a part not having been sown till near the middle of October, and the unfavorable weather in the spring. The fore part of March was very pleasant and the young grain grew rapidly, but on the 19th we had a very severe freeze which lasted several days and killed considerable of the Barley, and also the wheat of late sowing. My first sowing, I judge from the shocks per acre, would turn of 60 bushels. A neighbor of mine, who I furnished with seed, had an excellent crop, full 60 bu. per acre. I have not threshed much of my crop, only about 200 or 300 bu. which I sold for seed at 75 cts. per bushel, and suppose I have 1200 bu. for sale. The time is past for sowing. My crop is all up and looks very well. The fall has been favorable for seeding. I can furnish any amount of seed from the next year's crop, in time for the next year's sowing, at such price as may be hereafter agreed on. I began cutting my crop this year on the 18th June, but that was later than usual. From the 1st to the 20th September, in this country, is a good time for sowing. Benj. Spader. —*Logansport, Ind.*

Mr. F. asks "whether summer fallowing prairie land will pay expenses, where the soil is mainly sand and vegetable mold?" He adds: "I wish to know if plowing light soils two or three times is of any use?"

As a general rule, this practice is not to be commended; sometimes, however, where the ground is foul with weeds or grass, repeated plowings are necessary to clean the land, and bring it into fine tilth.

Mr. F. says that chintz bugs cover their fields, and have done considerable damage to the grain crops of that section. A remedy is desired.

Cranberries.—Some four years ago I saw an article on the Culture and Profits of the Cranberry. This induced me to give it a trial. In doing so, I found to my satisfaction that it neither wanted great expense or skill to arrive at the point. In the article alluded to, it was stated

that any land that would produce a good crop of corn would produce cranberries. My experience proves that a dry soil will produce plants, and but little or no fruit; while the wet or boggy soil will produce abundance of both. But my object is not to instruct, but to answer an inquiry in your paper last spring, where plants could be had? Now I would say, should there be a call, I would furnish them in any quantity, in boxes holding five bushels and upwards, at $2.50 per bushel, to be delivered at the Railroad Depot or Steamboat Wharf. J. FARMER.—*Cape Vincent, Jeff. Co., N. Y.*

BARN AND COW-STABLE.—I have been some years a subscriber to your very valuable periodical, and have noticed with pleasure and profit the many designs for cottages and dwellings that have appeared in your paper, and have looked in vain for plans of small barns and out-buildings. Can nothing be said or done to improve these necessary buildings, both in appearance and convenience? My acquaintance is not extensive; but I would say, that although I know of some good models for grain barns, I know of none that are well adapted for storing feed, wintering cattle, and saving manure.

As I am wishing to erect a barn, or building capable of containing twenty cows and their food during winter, and to milk them in or under in summer, will you or some of your able correspondents present a plan having reference to the following considerations:

1. The building should be just large enough; not too large.
2. There should be convenient and easy storage for hay, so as not to pitch it all aloft.
3. Should there be a cellar? If so, how large, &c., to correspond with the room for hay, and number of cattle.
4. Convenience of feeding, and ease of access by each cow.
5. A convenient way and place for saving all the manure, both liquid and solid.

I would also ask what is the best method of confining cattle, whether by stanchions, or by chain or rope? How many feet are required for each cow? What kind of rack or mangers? How many hours in twenty-four may they be confined on a floor?

If you or any one chooses to notice or answer this, together with any suggestions or information relating to stock or buildings, they will favor and benefit me, and possibly some one else. LEVI PADDOCK.—*Huron, N. Y.*

SHEEP DISEASE.—I have been a reader of your valuable paper for three years, and have seen no notice of a disease that is now making fearful ravages among my sheep. The disease is first manifested in their dull and stupid appearance. They soon become lame, often losing the control of a leg, and frequently straining to make water, and although they do not appear in great pain they die in ten or twelve hours, in one instance only having lingered along as many days. I have opened and examined them without finding anything that indicates disease, save a slight infection of the liver—no appearance of the common diseases of the country. I first thought they might have eaten poisoned food, but the disease being confined exclusively to the ewes, seems not to favor that idea. I have been thus particular, hoping you or some of your numerous readers know something of the cause and remedy for this fatal disease. D. N. SABIN.—*Shiawassee, Mich.*

HORTICULTURAL.

(G. L., Meadville, Pa.) To save Peach Buds.—"Earthing up" will effect your object, but the application of grafting wax is not advisable.

(J. D. H., South Butler, N. Y.) You can take your budded peach trees up with safety, and lay them in dry ground for the winter. It will not hurt the buds to be covered with earth.

(C. M., Port Clinton, Ohio.) The large plum you describe as seven and a half inches in circumference one way, and six the other, weighing three ounces, is the *Yellow Magnum bonum*, or *Yellow Egg*.

Basket Willow, or Ozier, can be had in small quantities at least, in most of the nurseries. It could not be grown successfully or profitably on land overflowed six months in the year. You will find some information in back numbers of the *Farmer*.

(D. S., Stockbridge, Mass.) The best time to transplant very large trees is in winter, when the ground is frozen and they can be moved on sleds. A deep trench should be dug around each, at such distance from the tree as will leave an abundance of roots, and when the ball of earth remaining around the roots is frozen solid, the tree can be moved to its new situation. We have seen very large trees thus moved successfully, with a pair of horses and a sled, and three or four handy men. Deciduous trees should have the heads well reduced by a shortening, and in some cases a total lopping off of branches. Some evergreens will also bear this, such as Hemlock, Red Cedar, Arbor Vitæ, &c., &c.

(JAMES A. NELSON, Mercer Co., Pa.) It is not uncommon in some localities for both apple and pear trees to be injured on the trunk, near the ground, by the freezing and thawing in winter, but we cannot understand the injuries or disease you describe as attacking the trunk higher up.

PEAR BLIGHT.—Mr. ASA PALMER, near Geneva, N. Y., says that cutting off a portion of the roots of pear trees will preserve or cure them of the blight. We cannot agree with Mr. PALMER.

(M. K., Bentonville, Ind.) PEACH TREES.—Planters differ in opinion in regard to the advantages of fall and spring planting. In mild climates, and *dry, light* soil, we would advise fall; in severe climates, or damp soils, the spring. To keep worms from killing them, examine the trees once or twice a year, and pick out with a knife any that are to be found. A peck of leached ashes laid around every tree, in the spring, will aid in keeping them off.

(Several Correspondents.) We have not yet received the proceedings of the Pomological Convention at Philadelphia, but hope to very soon. Copies may possibly be had by applying to some of the Secretaries—JAMES H. WATTS, Rochester, F. R. ELLIOT, Cleveland, or H. W. S. CLEVELAND, Burlington, N. J.

(R. S. HOWE, Lebanon, N. H.) Your box of fruits is received in good order, and we are greatly obliged. We will report upon them in the next number of the *Farmer*.

THE GENESEE FARMER FOR 1853.

ONE more number completes the present volume. To those who have read the *Farmer* the present year, we need not say that we have spared neither labor nor expense to make our paper interesting and valuable. But for our large and almost unparalleled circulation, every volume we print would cost us more than the price charged to subscribers. To our friends and agents everywhere, we tender our acknowledgements for past favors, and hope to increase our indebtedness another year. Let every subscriber spend an hour in calling the attention of his friends and neighbors to the claims of the *Genesee Farmer*, and we shall more than double our circulation the coming year. Let all engage in this work, and form clubs early.

The Practical and Scientific Farmer's own Paper.

THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE AND HORTICULTURE,

ILLUSTRATED WITH NUMEROUS ENGRAVINGS OF

Farm Buildings, Domestic Animals, Implements, &c.

VOLUME XIV, FOR 1853.

DANIEL LEE, JAMES VICK, JR., & JOSEPH HARRIS, EDITORS.

P. BARRY, Conductor of Horticultural Department.

IN issuing a Prospectus for the FOURTEENTH Volume of the Genesee Farmer, the Publisher flatters himself that it is too widely known, too extensively circulated, and too well read, to render it necessary to state the design of the work. Those who read the Farmer are the best judges of its value, and those unacquainted with it are invited to examine its pages.

The Fourteenth Volume will commence on the 1st of January, and will be issued regularly on the 1st of each month during the year. It will be printed on new type and superior paper, each number containing THIRTY-TWO PAGES, and making at the end of the year a Volume of 384 pages, with title page, index, &c., suitable for binding. The work is appropriately illustrated with beautiful and really valuable engravings of Farm Buildings, Implements, Domestic Animals, Choice Fruits, Flowers, Shrubs, &c.—The Volume for 1852, when bound, will make the most valuable Volume on Agriculture yet published in this country. The Volume for 1853 we design still farther to improve, and hope to be sustained in our efforts by the farmers of the country.

We number among our Contributors, hundreds of the best Practical Farmers in the country, and our readers have through our pages, the benefit of their wisdom and experience. No thinking man can read any number we issue, without receiving some useful hint in regard to the management of crops, stock, or the orchard, of more value than the price of the volume. The *Genesee Farmer* is by far the Cheapest Agricultural Journal published in America.—Our FORTY THOUSAND SUBSCRIBERS place us ahead of all other Agricultural Journals, and enable us to furnish a paper for the trifling sum of *Three or Four Shillings*, equal to any, both in value and beauty. Its position as the *Cheapest*, and at least one of the *Best Agricultural Journals* in the country, is fully established, and we confidently ask for it that support which it merits from the Farmers, Gardeners, and Fruit Culturists of the United States. We invite all who feel the importance of sustaining this work, and extending its usefulness, not only to subscribe themselves, but to introduce it to the patronage of their friends.

Fifty Cents a Year, in Advance.

Five Copies for $2—Eight Copies for $3, and any larger number at the same rate.

☞ All subscriptions to commence with the year, and the entire volume supplied to all subscribers.

☞ POST-MASTERS, FARMERS, and all friends of improvement, are respectfully solicited to obtain and forward subscriptions.

Subscription money, if properly enclosed, may be sent (post-paid or free) at the risk of the Publisher. Address to

DANIEL LEE,
November, 1852. *Rochester, N. Y.*

POSTAGE LAW.—By the new Postage Law, which took effect on the 1st of September last, the postage on the *Genesee Farmer* for one year is as follows,—when paid quarterly in advance:

Anywhere in the State of New York,..3 cts.
Anywhere in the United States,.....6 cts.

Northern N. Y. Live Stock Insurance Company, Plattsburgh, N. Y. For terms, please apply to agents of the Company.

Seeds.

FOUL MEADOW GRASS SEED, Genuine; Fine Lawn Grass; English and Italian Ray Grass; White Clover, &c., for sale by RALPH & CO.,
Union Ag. Warehouse and Seed Store, 23 Fulton St., New York. [11-2t]

French Zinc Paint.

THIS new and beautiful article of Paint is now offered to the trade and public, ground in prepared linseed oil, for the first time in this country. It has been used successfully in France for the last five years, where it has superseded white Lead as a paint.

The French Zinc when properly prepared and used, makes the most brilliant and durable white in use, and is entirely free from all poisonous qualities.

The French Zinc is not more expensive than white lead, and is prepared in such a manner that it requires no farther preparation for use, than to thin it with Turpentine or raw Oil to the consistency of white lead paint.

The French Zinc is very much whiter, and has a better body, than the New Jersey Zinc.

The French Zinc is offered dry, and prepared as above, in quantities to suit purchasers, at the Manufacturer's Depot, No. 17 Buffalo st., Rochester, N. Y.
July, 1852, M. F. REYNOLDS.

Monroe Nursery.

TO those who have purchased trees of me, at the Monroe Nursery, it is unnecessary to say anything here; but the public generally I would recommend to call and examine my stock of trees, for they are, without doubt, the most thrifty and stocky that can be found in any nursery around. It is true, I can not boast of 100,000 of one kind, 100,000 of another, 50,000 of another, &c.; but this I can say, that I have 40,000 fine, thrifty, well grown apple trees, three and four years old, all of the best leading varieties, ready for delivery this fall. Also, cherries, pears, peaches, &c., in like proportion, all of which are offered low, and very low to wholesale jobbers.

My facilities for obtaining buds and scions from bearing trees, are likewise unsurpassed by any other nursery, having, since I have owned and carried on the nursery, (now going on ten years,) set out new standards of all the best leading varieties, all of which are in bearing condition.

CHARLES POWIS.
Greece, Ridge Plank Road, Oct., 1850.

PREMIUMS FOR 1853.

During the year 1852 the editors of the Genesee Farmer circulated over Eight Hundred Dollars worth of the best Agricultural Books published in the country. These works, in addition to *Forty Thousand Copies Monthly of our own Journal*, scattered all over the land, even to Oregon and California, we believe have exerted, and will continue to exert a very beneficial influence. Their influence is not confined to those who receive them, but is felt by their children, their friends and neighbors. They must increase the knowledge, and consequently the power, and the wealth of those for whose especial benefit we labor. It is our intention to increase the circulation of these works. We do this for the good they accomplish, as well as a slight compensation to our friends—the friends of Rural Improvement—particularly Post-Masters throughout the country, who act as voluntary Agents, without the expectation of pecuniary reward. Below we give our List of Premiums for 1853.

PREMIUMS TO INDIVIDUALS.

1st. THIRTY DOLLARS in Agricultural Books, to the person who shall send us the largest number of subscribers, at the club prices, before the 10th day of April next, so that we may announce the successful competitor in the May number.

2d. TWENTY DOLLARS in *Agricultural Books*, to the person who shall send us the second highest list, as above.

3d. TEN DOLLARS, in *Agricultural Books*, to the person who sends us the third highest list.

In order to make the circulation of *Good Agricultural Books* More General and Beneficial, and to reward every one of the friends of the Genesee Farmer for their exertions in its behalf, we will give to those not entitled to either of the above premiums, the following *Books*, free of postage, or *Extra Papers*, as may be preferred:

1st. To every person person who sends SIXTEEN Subscribers, at our club terms of three shillings each, one extra copy of the Farmer.

2d. To every person sending for TWENTY-FOUR Copies, as above, any Agricultural Book valued at 50 cents, or two extra copies of the Farmer.

3d. To every person ordering THIRTY-TWO Copies of the Farmer, any Agricultural Book worth 75 cents, or three extra copies of the Farmer.

4th. For FORTY, any Agricultural Book valued at $1, or four extra copies of the Farmer.

5th. For FORTY-EIGHT, any Agricultural Book worth $1,25, or five extra copies of the Farmer.

☞ For larger numbers, Books or papers given in the *same proportion*. To *save cost* to our friends, we *pre-pay postage* on all Books sent as premiums, and persons entitled will please state whether they wish Books or extra papers, and make their selection when they send orders, if they desire Books; or if they have not obtained as many subscribers as they intend to, we will delay sending until the club is full, if so requested. We do not require that all the papers of a club should be sent to one Post Office. If necessary for the convenience of subscribers, we are willing to send to as many different Offices as there are members of the Club. We write the names on each paper, when a number is sent to the same Office, if so desired, but when convenient Post-Masters would confer a favor by having the whole number ordered at their own office, sent to their own address. ☜

COUNTY PREMIUMS.

To aid as much as possible in establishing *County Agricultural Libraries*, we offer the following Premiums, which we hope will aid in the more general establishment of County Libraries:

1st. We will give an AGRICULTURAL LIBRARY worth FORTY DOLLARS to the County in which the *greatest number of copies of the Genesee Farmer is taken by the 10th of April next.* This Library to be kept as a County Agricultural Library, under the care of the Agricultural Society.

2d. To the County in which the next greatest number is taken, an *Agricultural Library worth* TWENTY-FIVE DOLLARS, on the same conditions as above.

As the above two premiums will probably be taken in the *State of New York*, and as we wish to give our friends in other States an equal chance in the competition, we offer the same premiums to COUNTIES OUT OF THE STATE OF NEW YORK, thus:

1st. To the *County out of the State of New York* in which the greatest number of copies of our paper is taken, an Agricultural Library worth FORTY DOLLARS.

2d. To the next *County out of N. York*, a Library worth TWENTY-FIVE DOLLARS.

☞ As all Subscriptions commence anew with the year, places where the Farmer was never before taken will stand an equal chance in the competition for premiums. Individuals will receive the premiums to which they may be entitled for their individual benefit, as a compensation for their personal exertions, and the numbers they send will be credited to the Counties where the papers are sent, so that the premiums to individuals will not at all interfere with the County premiums, or the County with individuals.

BACK VOLUMES of the Farmer will be furnished, if desired, and counted the same as new subscribers. We shall keep a correct account of the subscribers sent by each person and county. In the May number we shall announce the premiums. *Libraries* will be forwarded per order, immediately after the announcement, and persons or societies can select their own books, or leave the selection to us. ☞ Specimen numbers, show-bills, &c., sent to all post-paid applicants. All letters must be paid or free. Subscription money, if properly enclosed, may be mailed at our risk.

THE HORTICULTURIST FOR 1853.

THE melancholy death of A. J. DOWNING deprived the readers of the *Horticulturist* of the labors of one whose essays they had so long read with unmingled pleasure and profit. Since that sad event became known, the great question among the horticulturists of the country, who have evinced a deep interest in the matter, has been, who should succeed to this important post. With singular unanimity, it has been assigned to P. BARRY, of Rochester, who has been urgently solicited in various ways, both publicly and privately, to take charge of the work. This, from the nature of his engagements, he could not do while the *Horticulturist* was published at Albany. The subscriber, who has long been connected with Mr. BARRY, as one of the editors of the *Genesee Farmer*, has therefore purchased the *Horticulturist*, and after the conclusion of the present volume it will be PUBLISHED AT ROCHESTER, and EDITED BY P. BARRY, assisted by many of the best Horticulturists of the country, whose communications will materially add to its value. The ARCHITECTURAL DEPARTMENT will be conducted by gentlemen of ability and reputation.

To render the work accessible to a greater number, and consequently more beneficial, the price will be reduced to TWO DOLLARS per year, *in advance*, and at the same time various improvements made. Each number will contain a full page engraving of some new, rare and valuable fruit or flower, drawn from nature, and engraved in a style not excelled.

Still further to add to the value of the work and meet the improving taste and increasing wants of the Horticultural community, we shall also publish an edition with COLORED PLATES, each number containing a full page engraving of some new, rare and valuable fruit or flower, correctly colored from nature, by the best living artists in this line. This will be a new and important feature, in this country, and must command the attention and patronage of both professional and amateur Horticulturists. As the number of colored plates we can furnish will be limited, from the care and time required in their preparation, those who wish the *Colored Edition of the Horticulturist for* 1853 will do well to order immediately. Price with colored plates, FOUR DOLLARS, *in advance.*

All who cultivate fruit or flowers should read the *Horticulturist*, as it is devoted entirely to Horticulture and its kindred arts Landscape Gardening and Rural Architecture, and will keep its readers advised of everything new on the subject, either in Europe or America.

It will be our aim not only to make the Horticulturist superior both in style and matter to any work of the character in this country, but equal to any of the Horticultural Journals of Europe, and we confidently ask the aid and co-operation of the Horticulturists of the country. The January number will be issued early in December, and specimen numbers will be sent to all who will interest themselves in its behalf. The volume to commence on the 1st of January, 1853.

Address J. VICK, JR., PUBLISHER,

November 1, 1852. *Rochester, N. Y.*

Emery's Patent First Premium, 1852,
RAILROAD HORSE POWER,
THRESHING MACHINES, SEPARATORS, &c.,
Western New York Agency.

E. D. Hallock, Agricultural Warehouse,

No. 50. State St., Rochester, N. Y.

THE Subscriber, late from the Albany Agricultural Works, Warehouse, and Seed Store, where he has been engaged for the past six years, has secured the sole Agency for the sale of Emery's Patent Railroad Horse Power for Rochester and vicinity, so widely and favorably known throughout the country, and which has, without exception, taken every highest premium awarded in the States of Ohio, Michigan, and in New York, for the best Railroad Horse Powers, in 1850, 1851, and again in 1852, also at the Provincial Fair of Canada, recently held at Toronto, was awarded a Diploma and £2, of which the judges highly commend the principle and workmanship of this Power, now offer them at manufacturer's prices, with the transportation added, and subject to the warrantee as follows:

"To work to the satisfaction of the purchasers as represented in Circulars and Catalogues, or to be returned within three months and full purchase money to be refunded."

For further particulars see Circulars and Catalogues, which are furnished gratis on application to the subscriber.

The attention of the Farming public is solicited, and a careful investigation into the construction of this Power, and its comparative merits, as well as price, is requested before purchasing elsewhere.

The Wheeler Power is also offered *ten* dollars cheaper than heretofore by any other agency, and subject to same warrantee as given by others for the same kinds. Samples will be kept constantly on hand, and to insure promptness and avoid disappointments in supplying them, farmers are requested to send in their orders at as early a date as possible.

He will keep for sale, Emery's Seed Planters, the best in use; Circular and Cross Cut Saw Mills, Feed Mills, Corn Stalk and Hay Cutters, Corn Shellers, Churning fixtures, &c., adapted to the Power.

Also, Reapers, Mowing Machines, Grain Drills, Plows, Harrows, Cultivators, Corn Shellers, Hay Cutters, Fan Mills, and agricultural and horticultural implements generally. He will be prepared to furnish dealers with Dunn and Taylor's well known Scythes; also, Manure, Straw, and Hay Forks, Snaths, Rifles, and other haying tools, at manufacturers' prices, wholesale and retail.

Particular attention is called to A NEW PLOW, which is believed to be the best cast-iron Plow ever offered, and which is warranted to do better work, with less expense of team than any plow heretofore sold in this vicinity, while the price is less than for any other equally well finished.

The "uniform one-price, cash system" will be adopted, with the prices as low as the cost of articles and just compensation for labor and time will allow. Farmers and others are invited to call and examine the stock of Machines and Implements,—and are assured no effort shall be wanting to meet promptly the wants of a discriminating public. [11-tf] E. D. HALLOCK.

Important to Fruit Growers.

THE subscriber having been for a number of years engaged in rearing and experimenting with Fruit and Fruit Trees, now offers the result of his observations to the public. He has discovered a certain substance which, if applied to Fruit Trees, renders both their trunks and foliage obnoxious to vermin. The Yellows, in the Peach tree, is permanently cured by one or two applications. He has also discovered a cheap and successful mode of preserving fruit during the winter, or for an indefinite period, entirely free from rot.

Persons wishing to avail themselves of these discoveries, by enclosing *One Dollar* in a letter to J. W. WILLIAMS, Pottstown P. O., Montgomery Co., Penn., will receive the mode of application by return of mail.

November, 1852.—*2

Superphosphate of Lime.

THE genuine article, manufactured by C. Duburg, in bags of 150 lbs. each. The subscribers have made a contract for a large quantity. We are now prepared to supply any quantity that may be ordered. Farmers and gardeners would do well to call on us before purchasing elsewhere, as we are now able to sell for a less price than heretofore offered. Every bag is branded "C. Duburg, Extra, No. 1."

LONGETT & GRIFFING,

State Agricultural Warehouse, No. 25 Cliff Street, New York. [11-tf]

NEW YORK STATE
AGRICULTURAL WORKS.
Wheeler, Melick, & Co.

WILL, at the shortest notice, fill all orders for Machines made by them, among which are their Double and Single Horse Powers and Overshot Threshers and Separators, Combined Threshers and Winnowers, Circular Saw Mills, Clover Hullers, Horse Powers geered for Churning, Feed Cutters for Horse Power use, &c., &c,

The scarcity of fodder which prevails in many parts of the country in consequence of the present dry season, induces them to call the especial attention of farmers to their

Wheeler's Pennsylvania Feed Cutter,

as being peculiarly adapted to the emergency.

This Machine is made expressly for Horse Power use, and is very strong and substantial. In Pennsylvania it is used chiefly for cutting corn stalks, although it cuts straw and hay equally well, and will cut from half an inch to two inches in length. It is simple and compact, having four plain, straight knives which are attached in such a manner that they may be taken off and ground, and then replaced without producing the least variation. All the wearing parts are made so that they can be adjusted by means of screws, with a common wrench, and any person can keep the Machine in the most perfect order. In cutting corn stalks they are crushed between strong iron feed rolls, and being cut short, the coarse stalks are split into small pieces, which reduces the whole to very fine feed. They are capable, with one horse, of cutting 150 bu. per hour.

Price, $28. WHEELER, MELICK & CO.

Corner of Hamilton and Liberty Streets.

Albany, Nov., 1852.

GENEVA NURSERIES.
Fruit and Ornamental Trees and Seedlings.

PEAR SEED, APPLE SEED, &c., &c.

W. T. & E. SMITH desire to call the attention of Nurserymen, Dealers, and Fruit Growers, to their large stock of Thrifty and Well Grown Fruit and Ornamental Trees, suitable for Garden, Orchard, and Ornamental planting.

40,000 Apple, large and thrifty.
15,000 Peach, 2 years old.
8,000 Pear, standard and dwarf.
20,000 Cherry, standard and dwarf.
10,000 Orange Quince, 4 years old.
8,000 Horse Chestnut, 6 to 8 feet high.
10,000 Mountain Ash, 6 to 8 feet high.
4,000 Evergreens—Balsam Fir, Norway Spruce, and Austrian Pine.
2,000 Grape Vines, mostly Isabella.
3,000 Plum, Apricot, Nectarine, and Almond.
10,000 Basket Willow Cuttings.
20,000 Apple Seedlings, 1 year old.
10,000 Cherry Seedlings.
25,000 European Mountain Ash, $8 per 1000.
3,000 English Thorn, for Hedges.
2,000 Privet, for hedges and screens.
20,000 Horse Chestnut, $8 per 1000.
1,000 Downing Colossal Rhubarb.

Strawberries, 30 varieties; Roses, Dahlias, Gooseberries, Currants, Raspberries, Asparagus, Roots, Pie Plant (Early Lemon), Pear Seed, Apple Seed, &c. &c.

November, 1852.—[*2]

Prices of Agricultural Products at the Principal Markets in the United States. — Oct. 23, 1852.

	New York.	Boston.	Rochester.	Chicago.	Cincinnati.	Philadelphia.
Beef, per 100 lbs....	$5.00 a 5.50	$6.00 a 9.00	$5.50 a 6.00			
do mess, per bbl..	9.50 15.00	12.00 14.00	10.00 10.50			
Pork, per 100 lbs....			6.50 7.00	5.00	$5.00 5.50	
do mess, per bbl.	17.00 17.12½	19.50	16.00 19.00	18.00 20.00		18.50 19.00
Lard, per lb.....	11¾	12 12½	9 10	10 11	10 a 11¼	12 12½
Butter, do	16 25		18 20	15 16	12 18	12 14
Cheese, do	8 9¼	7 9	6 7	5½ 7	7 8	
Flour, per bbl.....	4.50 5.87½	4.62 5.75	4.50 4.75	2.50 3.50	3.30	4.87½ 4.87½
Wheat, per bush....	85 1.12½	90 1.15	93 94	68 72	57 60	96 1.04
Corn, shelled, per bu.	75 76	68 76	62½	50	40 42	74
Rye, do	85	80 85	56 62	52 53	48 53	85
Oats, do	42 46½	44 50	34 38	28 31	27 28	34 39
Barley, do	72 77		62½	48 52	45 50	
Clover seed, do	8 pr. lb.	8 a 11 per lb.	5.50	12 per lb.	4.00 5.00	5.00 5.12
Timothy seed, do	$16 per ton.	3.00 3.50	2.50 2.63	2.25	1.75 2.00	2.87½ 2.75
Flax seed, do	1.30 1.40		1.25 1.87½	1.00	90	
Hay, per ton.....	20.00 22.50	20.00 24.00	10.00 15.00			
Wool, per lb.....	36 52	35 50	30 40	22 36	28 45	37½ 60
Wood, hard, per cord		6.00 6.50	3.50 4.50	3.00 4.00		

CONTENTS OF THIS NUMBER.

The Future of the Genesee Farmer,..... 329
Wheat Culture,..... 330
The Wants of Social and Domestic Life,..... 332
Beauty and Value of Forest Trees,..... 333
Wintering Cattle and Horses,..... 334
Fattening Cattle and Seeep in Winter,..... 336
Prepare for the Storm,..... 338
Improvement in Farm Gates,..... 339
CONDENSED CORRESPONDENCE.—Mulching Potatoes; A Singular Fact; Oregon Peas, &c.; Woolen Rags as Manure,..... 340
Agricultural Prodnctions,..... 341
Cotswold Sheep,..... 345
LADIES DEPARTMENT.—Flowers and Flower Seeds,... 352
EDITORS' TABLE.—Notices, &c.,..... 353
Inquiries and Answers,..... 354

HORTICULTURAL DEPARTMENT.

Culture of Dwarf Fruit Trees,..... 346
Number of Plants on an Acre, at given distances apart, 347
Garden Hints for November,..... 348
New French Cherries,..... 349
Western Exhibitions,..... 350
Annual Fall Exhibition of Gen. Valley Hort. Society,. 351
Acknowledgements,..... 351
Answers to Correspondents,..... 356

ILLUSTRATIONS.

Woolman's Improved Farm Gate,..... 339
Cotswold Ram,..... 344
Cherry, Bigarreau Esperin,..... 349
do. Cerise de la besnardiere,..... 349
do. Bigarreau Marcelin,..... 349
do. Guigne precoce de Tarascan,..... 349
do. Duchesse de Galnau,..... 350
Dwarf Convolvulus,..... 352

ANDRE LEROY,

Nurseryman, at Angers, France,

HONORARY and Corresponding Member of the principal Horticultural Societies of the United States and Europe, begs leave to inform his friends and all the Nurserymen of the Union in general, that he has made large preparations and has now on hand, a considerable stock of the finest Evergreen Seedlings, Roses, Fruits, and Ornamental Trees, &c. &c., most suitable for the American market. The experiments of several years, of putting up large orders for the United States, enables him to flatter himself that he has now all the necessary knowlepge to give full satisfaction, and to insure the delivery, in good order, of all the Trees, &c., ordered.

He also begs to inform all Nurserymen who have not already received the supplement for 1852, to his Catalogue for 1851—that it can be obtained free of any charge at his Agent's office, M. Ed. Bossange, 138 Pearl St., New York, who will also attend to forwarding all orders sent to him, and to pass through the Custom House; and re-ship all goods ordered without any delay and with the greatest care.

Address M. ANDRE LEROY, Angers, France, care of
ED. BOSSANGE,
[11-2t] 138 Pearl Street, New York.

Sausage Cutters and Stuffers.

A VERY superior article, made of wood and iron, that will cut from 70 to 100 lbs. per hour. Price $4, $5 and $8 each. For sale by LONGETT & GRIFFING,
[11-3t] No. 25 Cliff St., New York.

Premium Dahlias.

THE subscribers offer for sale this Autumn and the ensuing Spring, 10,000 Dahlia Roots, which have proved to be the choicest collection in the States and Canadas. [See records of the Fairs for the last four years.]

Persons commencing the Nursery business, and Amateurs, will find it to their advantage to give us a call, or make enquiries before purchasing elsewhere.

C. J. RYAN & CO.,
Rochester and Charlotte Plank Road Nurseries, Rochester, N. Y. [11-tf]

For Sale.

ONE of the desirable farms in the Chenango Valley, situated two miles from the village of Oxford, containg 220 acres, river flat—grain land, pasture, wood land, and orcharding. A large and convenient dwelling house, two large barns, with sheds and out-houses. Watered by the Chenango river, a creek, (on which is a saw-mill,) and by never-failing springs. On it are more than seven hundred rods of stone wall. Persons wishing to purchase, are desired to look at the crops and stock on the farm. Inquire of JOHN TRACY,
Oct., 1852.—10-2t* Oxford, N. Y.

Important to Farmers.

IT IS generally conceded by all intelligent farmers that cutting the food for cattle will save from 25 to 30 per cent. Bertholl's Oblique Rotary Corn Stalk, Hay and Straw Cutter, is conceded by all that have used it to be far superior to any other, as it destroys all hard substances in the stalk leaving it soft and easily eaten. It turns very easy and is not liable to get out of order, and, with care, will last an age. It has been awarded Four First Premiums and a Silver Medal, by the American Institute. For further particulars address (post paid) the patentee, H. W. BERTHOLF, Sugar Loaf, Orange Co., N. Y., or LONGETT & GRIFFING, 25 Cliff St., New York, who are agents.

☞ Patent Rights for sale. [11-3t]

BOOK AGENTS WANTED.

GOOD salesmen can earn from $1 to $3 per day, in selling
AGRICULTURAL BOOKS,
POLITICAL CAMPAIGN BOOKS,
LARGE AND SMALL BIBLES,
POLITICAL AND OTHER PICTURES,

Uncle Tom's Log Cabin; Uncle Tom as it is; Northwood, Mrs. Hale's new book; Cheap Publications; Gold Medals, Gen. Scott and Gen. Pierce; together with other new books.

I will furnish agents with from $15 to $30 worth of books for cash, and take back all the unsold books and refund the money. Agents can make from 25 to 100 per cent. profit, and in this way are not compelled to keep their stock if not sold. Books can be sent by Express to any address. Money can be safely sent by mail. Address
D. M. DEWEY,
Oct., 1852. Arcade Hall, Rochester, N. Y.